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## FED. STD. NO. 751

**AUGUST 14, 1959** 

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#### FEDERAL STANDARD

# STITCHES, SEAMS, AND STITCHINGS

This standard was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies

SCIENTIFIC UDRARY AUG 2 1 1962 B. S. PATENT UPTICE G1.440

# INFORMATION SHEET ON FEDERAL STANDARDS

This Federal Standard is issued in loose leaf form to permit the insertion or removal of new or revised pages.

All users of Federal Standards should keep them up to date by inserting revised or new pages as issued and removing superseded and canceled pages.

New and revised pages will be issued under Change Notices which will be numbered consecutively and will bear the date of issuance. Change Notices should be retained and filed in front of the Standard until such time as they are superseded by a reissue of the entire Standard.

# FEDERAL STANDARD STITCHES, SEAMS, AND STITCHINGS

Authority.—This standard is issued pursuant to the Federal Property and Administrative Services Act of 1949, as amended, and its application to the commodities referred to herein is mandatory on all Federal agencies.

## PART I. GENERAL INFORMATION

## Section 1. Scope, Contents, and Classification

1.1 Scope. This standard establishes, defines, and illustrates the requirements for the types of stitches, seams, and stitching formations specified in Government specifications for the fabrication of sewn items.

#### 1.2 Contents.

#### PART I-GENERAL INFORMATION

Section 1—Scope, Contents, Classification, and Notes.

Section 2—Index of Seams, Stitches, and Stitchings.

Section 3—Characteristics of Seams and Stitchings.

Section 4—Guide For The Use of Stitches, Seams, and Stitchings.

#### PART II—REQUIREMENTS

Section 1—Stitches.

Section 2-Seams.

Section 3—Stitchings.

1.3 Classification. The stitches, seams and stitchings are classified as follows:

1.3.1 Stitch. A stitch is one unit of conformation of thread resulting from repeatedly passing a strand or strands and/or a loop or loops of thread into or through a material at uniformly spaced intervals to form a series of stitches. Stitches are divided into six classes:

#### Stitch classes

100-Chain stitch.

200-Hand stitch.

300-Lock stitch.

400—Multi-thread chain stitch (or "double locked stitch").

500-Overedge stitch.

600-Flat seam stitch.

1.3.2 Seam. A seam is a joint consisting of a sequence of stitches uniting two or more pieces of materials and is used for assembling parts in the production of sewn items. Seams are divided into four classes:

Seam classes

SS-Superimposed.

LS-Lapped.

BS-Bound.

FS-Flat.

1.3.3 Stitching. Stitching consists of a sequence of stitches for finishing an edge or for ornamental purposes or both in preparing parts for assembling. Stitchings are divided into two classes:

Stitching classes

OS-Ornamental.

EF-Edge finishing.

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# Section 2. Index of Stitches, Seams and Stitchings

STITCHES	STITCHES	SEAMS	SEAMS
Stitch Class 100	Stitch Class 500	Seam Class LS	Seam Class LS
Stitch type	Stitch type	Seam type	Seam Type
	510	LSa	LSbg
101	511	LSb	LSbh
102	512	LSe	Seam Class BS
103		LSd	
104	Stitch Class 600	LSe	Seam type
GULL OU DOO	Stitch type	LSf	BSa
Stitch Class 200	601	LSg	BSb
Stitch type	602	LSj	BSc
201		LSk	BSd
202	603	LSI	BSe
203	604	LSm	BSf
204	605	LSn	BSg
204	606	LSp	BSh
Stitch Class 300	607	LSq	Bon
Stitch type			Seam Class FS
Stitch type	SEAMS	LSr	Seam type
301	Seam Class SS	LSs	-
302	Seam type	LSt	FSa
303	SSa	LSu	FSb
304		LSv	FSc
305	SSb	LSw	FSd
306	SSc	LSx	STITCHINGS
307	SSd	LSy	
	SSe	LSz	Stitching Class OS
308	SSf	LSaa	Stitching type
309	SSh	LSab	OSa
310	SSj	LSac	OSb
311	SSk	LSad	OSc
312	SSI	LSae	OSd
Child City Con	SSm	LSaf	OSe
Stitch Class 400	SSn	LSag	OSf
Stitch type	SSp	LSah	OBI
401	SSq		Stitching Class EF
402	SSr	LSaj	Stitching type
403	SSs	LSak	
	SSt	LSal	EFa
404		LSam	EFb
405	SSu	LSan	EFc
406	SSv	LSap	EFd
407	SSw	LSaq	EFe
Still Cl. Too	SSx	LSar	EFf
Stitch Class 500	SSy	LSas	EFg
Stitch type	SSz	LSat	EFh
501	SSaa	LSau	EFj
502	SSab	LSav	EFk
503	SSac	LSaw	EFI
	SSad	LSax	EFm
504	SSae	LSay	EFn
505	SSaf		
506	SSag	LSaz	EFp
507	SSah	LSba	EFq
508	Don't	LSbb	EFr
509		LSbc	EFs
		LSbd	EFt
		LSbe	EFu
		LSbf	EFv

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# Section 3. Characteristics of Seams and Stitchings

3.1 The characteristics of a properly constructed seam or stitching are strength, elasticity, durability, security and appearance. These characteristics must be balanced with the properties of the material to be joined to form the optimum seam. The end use of the item will govern the relative importance of these characteristics, and the selection of the seam or stitching type and stitch type should be based upon these considerations.

3.1.1 Strength. The strength of the seam or stitching should equal that of the material it joins in order to have balanced construction that will withstand the forces encountered in the use of the item of which the seam is a part. The elements affecting the strength of a seam or stitching are:

- (a) Stitch type.
- (b) Thread strength.
- (c) Stitches per inch.
- (d) Thread tension.
- (e) Seam or stitching type.
- (f) Seam efficiency of the material.

3.1.2 Elasticity. The elasticity of a seam or stitching should be slightly greater than that of the material which it joins, so that the material will support its share of the forces encountered in the end use of the sewn item. The elasticity of a seam or stitching depends upon:

- (a) Stitch type.
- (b) Thread elasticity.

3.1.3 Durability. The durability of a seam or stitching depends largely upon its strength and the relation between the elasticity of the seam and the elasticity of the material. However, in the less elastic, tightly woven, dense materials there is a tendency for the plies to "work" or slide on each other. To form a durable seam or stitching in such materials, the

thread size must be judiciously chosen and the stitches well set to the material (without undue tension which will unbalance the elasticity and cause puckering) to minimize abrasion and wear by contact with outside agencies.

3.1.4 Security. The security of a seam or stitching depends chiefly upon the stitch type and its susceptibility to become unraveled. The stitch must be well set to the material to prevent snagging which can cause rupture of the thread and unraveling of certain of the stitch types.

3.1.5 Appearance. The appearance of a seam or stitching generally is governed by the proper relationship between the size and type of thread, the length of stitch or number of stitches per inch, and the texture and weight of the fabric.

In addition to this relationship, the technique and skill of the sewing machine operators also govern the appearance of the seams and stitchings. Some of the factors which will adversely affect the appearance are as follows:

## Stitch defects

Loose stitches.
Poorly formed stitches.
Crowded stitches.
Tight stitches.
Crooked stitches.
Skipped stitches.

Seam and stitching defects

Puckers.
Twists.
Pleats.
Undulations.
Run-offs (raised seams).
Raw edges exposed (felled seams).

## Section 4. Guide for the Use of Stitches, Seams, and Stitchings

4.1 The following table illustrates a general application of the various types of stitches, seams, and stitchings to typical operations.

Guide for use of stitches, seams, and stitchings

Seam type	Operation	Types of standard stitches suitable	
Superimposed seams			
SSa-1	Seaming (bags, jute, cotton)	101, 104, 301, 401.	
	Basting.	101.	
	Seaming (straight)	301,401.	
	Seaming (zig zag)	304, 404.	
	Seaming (overedge)	501 to 512.	
	Seaming (using waxed thread)	101, 201, 301.	
SSa-2	Seaming and serging	301, 401, 501 to 507.	
SSb-1 and SSb-2	Seaming (straight)	301, 401, 302, 402.	
	Seaming (where similar stitch is essential on both surfaces).	301.	
SSc-1 and SSc-2	Seaming	301, 401, 302, 402.	
SSd-1	Seaming	301, 401.	
SSe-2 and SSe-3	Seaming and edge finishing	301, 401, 302, 402.	
	Making cuffs, collars, etc., and edge stitching on coats and shoes.	301.	
SSf-3	Taping or staying	301, 401.	
SSh-2		302, 402, 406.	
SSj-1	Seaming	201, 301, 401.	
SSk-1	Seaming and cording	201, 301, 401.	
SSI-1	Seaming	201, 301, 401.	
8Sm-1	Seaming or felling, where a blind stitch is required.	103.	
	Padding lapels, felling tapes, etc.	103.	
SSn-1		101, 301, 401.	
Sp-1	Seaming	301, 401.	
Sq-2 and SSq-3	Seaming	301, 401, 302, 402.	
Sr-1	Seaming	301, 401.	
Ss-1 and SSs-2	Seaming and staying	301, 401.	
St-2 to SSt-4		301, 401.	
Su-2 to SSu-4	Attaching elastic	301, 401.	
Su-2	Making pocket jettings	301.	
Sv-1 to SSv-3		301, 401.	
Sw-2	Seaming	301, 401.	
Sx-2		301, 401.	
Sy-2		301, 401.	
Sz-3		301, 401.	
Saa-1		301.	
Sab-1		301.	
Sac-3		301.	
Sad-3	Seaming and staying.	301, 401.	
Sae-2 and 3	Control of the contro	301, 401.	
Saf-2		301, 401.	
Sag-3	Seaming and staying	301, 401.	
Sah-3 and SSah-4	Seaming	301, 401.	
Lapped seams			
Sa-1	Seaming knitted materials or underwear and similar garments.	602, 603, 604, 605.	
Sa-1 and LSa-2	Seaming	301, 401, 402, 406, 407.	
	Seaming (using waxed thread)	101, 201, 301.	

Seam type	Operation	Types of standard stitches suitable
Lapped seams—Con.		
LSb-1 and LSb-2	Seaming	301, 401, 402, 406.
LSc-1 to LSc-4	Seaming	301, 401.
LSd-1 to LSd-3	Attaching pieces to body of material	301, 401, 406.
		301, 304, 401.
LSe-1 to LSe-3	Seaming	301, 401.
LSf-1 and LSf-2		301, 401.
LSg-2 to LSg-4	Facing (center plaits, stays, etc.)	301, 401.
LSj-2 and LSj-4	Facing (center plaits, stays, etc.)	301, 401.
LSk-2 and LSk-4		301, 401.
	Facing and seaming (center plaits, stays, etc.)	101, 301, 401.
LSm-2 and LSm-4	Facing (center plaits, stays, etc.)	301, 401.
LSn-1	Facing (center plaits, stays, etc.)	301, 401.
LSp-2 and LSp-4	Joining with overlapping strip	
LSq-2 and LSq-3	Seaming	201, 301, 401.
LSr-2	Seaming	301, 401.
LSs-2	Seaming.	301, 401. 301, 401.
LSu-2	Seaming.	301, 401. 301, 401.
LSv-2	Facing and staying Joining band (plain, elastic, etc.)	
LSw-4 LSx-2 and LSx-3		301, 401. 301, 401.
LSv-2 and LSv-3	Seaming.	301, 401.
LSz-3 and LSz-4		301, 401.
LSaa-3	Seaming Seaming	301, 401.
LSab-3 and LSab-4		301, 401.
LSac-2		301, 401.
LSad-2		301, 401.
LSae-1		301, 401.
LSaf-2		301, 401.
LSag-2		301, 401.
LSah-1		301, 401.
LSaj-1		301, 401.
LSak-2		301, 401.
LSal-2 and LSal-4		301, 401.
LSam-2 and LSam-4		301, 401.
LSan-2 and LSan-4		301, 401.
LSap-1		301, 401.
LSaq-1		
LSar-2 to LSar-4		
LSas-2		
LSat-2	Seaming and staying	301, 401.
LSau-2 to LSau-4	Seaming	301, 401.
LSav-4	Seaming and reinforcing	301, 401.
LSaw-3	Seaming	301, 401.
LSax-4	Seaming	301, 401.
LSay-4	Sewing-on band with elastic	301, 401.
LSaz-4	Seaming and staying	301, 401.
LSba-2	Seaming	And the second of the second o
LSbb-4		
LSbc-2 to LSbc-4	Facing	
LSbd-2	Seaming	
LSbe-2		
LSbf-2 to LSbf-4		
LSbg-1		1
LSbh-1 and LSbh-2		301, 401.
	material.	

Seam type	Operation	Types of standard stitches suitable
Bound seams		
BSa-1 and BSa-2	Binding, bound seaming	301, 401, 304, 404, 406.
BSb-1 and BSb-2	Binding, bound seaming	301, 401, 304, 404.
BSc-1 and BSc-2	Binding, bound seaming	301, 401, 304, 404.
3Sd-2	Seaming and binding	301, 401.
BSe-2	Seaming and binding	301, 401.
3Sf-2	Seaming and binding	301, 401.
3Sg-2	Seaming and binding	301, 401.
3Sh-3	Seaming and binding.	301, 401.
Flat seams		
FSa-1	Seaming	304, 404, 606.
	Attaching collars, cuffs. borders, etc. to knitted articles.	602, 603, 606.
	Attaching edging, lace, etc	601, 602, 603.
FSb-1	Seaming	304, 602, 603, 606.
FSc-1	Seaming	304, 404.
FSd-3	Seaming and staying	304, 404.
Ornamental stitching		
OSa-1 to OSa-3	Ornamental	101, 102, 104, 201, 203, 204, 301 302, 303, 304, 305, 306, 307 309, 310, 311, 312, 402, 403
		404, 405, 406.
OSb-1	Cording	102, 302, 402, 406.
OSc-1	Cording	102, 302, 402, 406.
OSd-2 and OSd-3	Cording	101, 301, 401.
OSe-1	Tucking or plaiting	101, 301, 401.
OSf-1	Tucking and mock seaming	101, 301, 401.
Edge finishing		
EFa-1 and EFa-2	Hemming (one fold)	101, 102, 301, 302, 401, 402, 406
EFb-1 and EFb-2	Hemming (two folds)	101, 301, 401, 402, 406.
EFc-1	Blind hemming (woven)	301.
	Blind hemming (knit)	301, 401, 502, 503, 505.
EFd-1	Edge finishing (serging)	502, 503, 504, 505.
	Ornamental edge finishing	304, 502, 503, 504, 505, 601, 603 604, 605, 607.
EFe-1	Ornamental edge finishing (zig zag)	304, 404.
EFf-1	Hemming with elastic tape	101, 301, 401.
EFg-2	Hemming with elastic tape	101, 301, 401.
EFh-1	Making loops or straps	406.
EFj-1 and EFj-3	Making straps	301, 401.
	Making straps (using waxed thread)	101, 301
EFk-2 and EFk-4	Cut-on center plait (shirt fronts)	301, 401.
EFI-1	Blind Hemming	301, 401.
EFm-1	Blind Hemming	301, 401.
EFn-2 and EFn-4	Making straps or loops	301, 401.
EFp-1 and EFp-2	Making straps or loops	301, 401.
EFq-2	Inserting elastic in hems	301, 401.
	Inserting elastic in hems	301, 401.
EFr-2		301, 401.
EFr-2 EFs-2	Making straps or loops	301, 401. 301, 401.
EFr-2		301, 401.

#### 1.4 Notes.

Changes. When a Federal agency considers that a Federal standard does not provide for its essential needs, written request for adding to or otherwise changing the standard, supported by adequate justification, shall be sent to the Administration. This justification shall explain wherein the standard does not provide for essential needs. The request shall be sent in duplicate to the General Services Administration, Federal Supply Service, Standardization Division, Washington 25, D.C. The Administration will determine the appropriate action to be taken and will notify the agency.

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(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge at the General Services Administration Regional Offices in Boston, New York, Atlanta, Chicago, Kansas City, Mo., Dallas, Denver, San Francisco, Los Angeles, Seattle, and Washington, D.C.

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This Standard and Canadian Government Specifications Board Specification 54-GP-1 are identical in technical content.

## PART II. REQUIREMENTS

#### Section 1. Stitches

- 1.1 Stitches. Stitches are divided into six classes which are identified by the first digit of three digit numerals. Each class is divided into several types which are identified by the second and third digit. All stitch types shall conform to the drawings unless otherwise specified.
- 1.1.1 Stitch class 100. This class of stitch shall be formed with one or more needle threads and has for its general characteristic interlooping. A loop or loops of thread or threads shall be passed through the material and secured by interlooping with succeeding loop or loops, after they are passed through the material, to form a stitch.
- 1.1.2 Stitch class 200. This class of stitch shall be formed by hand with one or more needle threads and has for a general characteristic that each thread passes through the material as a single line of thread and the stitch is secured by the single line of thread passing in and out of the material or interlooping of the threads with themselves. When more than one thread is used, the threads pass through the same perforations in the material.
- 1.1.3 Stitch class 300. This class of stitch shall be formed with two or more groups of threads and has for a general characteristic, the interlacing of the two groups. Loops of the first group are passed through the material where they are secured by the thread or threads of the second group to form a stitch.
- 1.1.4 Stitch class 400. This class of stitch shall be formed with two or more groups of

- threads and has for a general characteristic the interlacing and interlooping of the loops of the two groups. Loops of the first group of threads are passed through the material and are secured by interlacing and interlooping with loops of the second group to form a stitch.
- 1.1.5 Stitch class 500. This class of stitch shall be formed with one or more groups of thread, and has for a general characteristic that loops from at least one group of thread shall pass around the edge of the material. Loops of one group of thread are passed through the material and are secured by interlooping with themselves before succeeding loops are passed through the material, or secured by interlooping with loops of one or more interlooped groups of threads before succeeding loops of the first group are again passed through the material.
- shall be formed with two or more groups of threads, and has for a general characteristic that two of the groups cover the raw edges of both surfaces of the material. Loops of the first group of thread are passed through loops of the third group already cast on the surface of the material and then through the material where they are interlooped with loops of the second group of thread on the underside of the material. The one exception to this procedure is stitch type 601 where only two groups of thread are used and the function of the third group is performed by one of the threads in the first group.

## PART II. REQUIREMENTS

#### Section 2. Seams

- 2.1 Seams. Seams are divided into four classes. The seams in each class are subdivided into types and are designated by symbols as follows:
  - Class of seam—two or more upper case letters.
  - Types of the class—one or more lower case letters.
  - Number of rows of stitches—one or more arabic numerals.
  - Example: The symbol for a simple superimposed seam type with one row of stitches is: SSa-1.

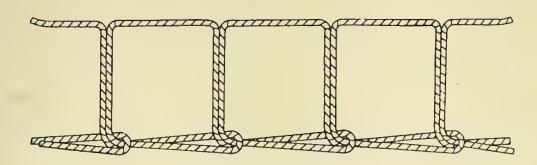
Generally most seam types can be produced using multiple rows of stitching. The symbol for the seam type will change with the number of rows of stitches: SSa-2, SSa-3, SSa-4, etc. All seam types shall conform to the applicable drawings unless otherwise specified.

- 2.1.1 Seam class SS. This class of seam has for a general characteristic that the plies of material are superimposed and seamed with one or more rows of stitches.
- 2.1.2 Seam class LS. This class of seam has for a general characteristic that the plies of material are lapped and seamed with one or more rows of stitches.
- 2.1.3 Seam class BS. This class of seam has for a general characteristic that it is formed by folding a binding strip over the edge of one or more plies of material and seaming the binding strip to the material with one or more rows of stitches.
- 2.1.4 Seam class FS. This class of seam has for a general characteristic that it is formed by seaming the abutted edges of material together in such a manner that the stitches extend across and cover or tend to cover the edges of the plies joined.

## PART II. REQUIREMENTS

## Section 3. Stitchings

- 3.1 Stitchings. Stitchings are divided into two classes and within each class there are several types.
- 3.1.1 Stitching class OS. This class of stitching has for a general characteristic that a series of stitches are embodied in a material either in a straight line, a curve, or following a design, for ornamental purposes.
- 3.1.2 Stitching class EF. This class of stitching has for a general characteristic that edge finishing is accomplished by either:
- (a) stitching a series of stitches at or over the edge of a material, the edge may or may not be folded as specified, or
- (b) the edge of the material is folded and stitched to the body of the material with a series of stitches.



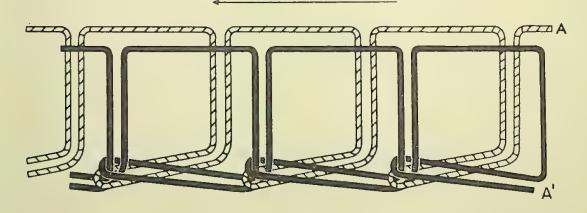
## STITCH TYPE 101

This type of stitch shall be formed with one needle thread which shall be passed through

the material and interlooped with itself on the undersurface of the material.

Stitch Type 102 August 14, 1959

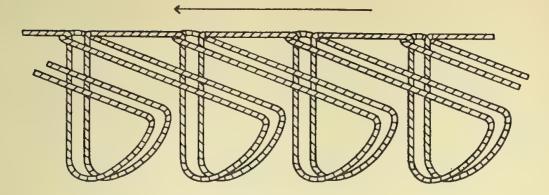
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 102

This type of stitch shall be formed with two needle threads A and A'. Both threads shall be passed through the material and thread A'

shall be interlooped with itself and with thread A.



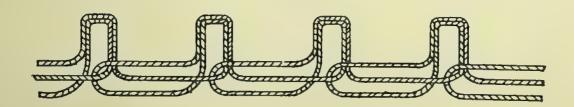
## STITCH TYPE 103

This type of stitch shall be formed with one needle thread which shall interloop with itself

on the undersurface of the material.

Stitch Type 104 August 14, 1959

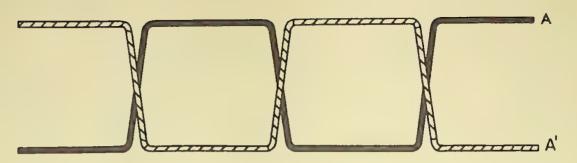
### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 104

This type of stitch shall be formed with one needle thread, which shall interloop with itself on the top surface of the material. The thread

shall be passed through the top ply and horizontally through portions of the bottom ply without penetrating it the full depth.

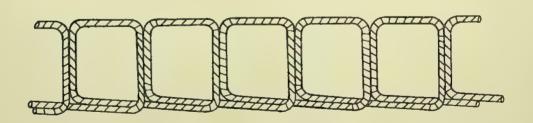


## STITCH TYPE 201

This type of stitch shall be formed with two needle threads, A and A', which shall be passed through the material in the same perforations trom opposite directions without interlacing or interlooping.

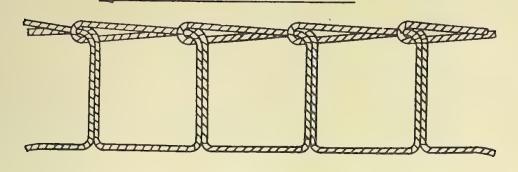
Stitch Type 202 August 14, 1959

## DIRECTION OF SUCCESSIVE STITCH FORMATION



# STITCH TYPE 202

This type of stitch shall be formed with one needle thread, which shall be passed through the material brought forward two stitch lengths, passed back through the material and brought back one stitch length before being passed through the material a third time.



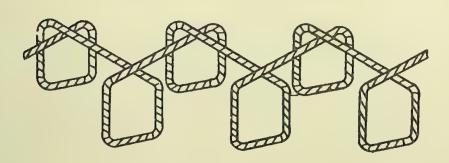
# STITCH TYPE 203

This type of stitch shall be formed with one needle thread, which shall be passed through the material from the underside and immediately passed back through the same perforation to form a loop on the surface of the material.

The needle shall be advanced one stitch length, passed through the material and the loop and immediately passed back through the loop and the same needle perforation, and a new loop shall be formed to receive the succeeding stitch.

Stitch Type 204 August 14, 1959

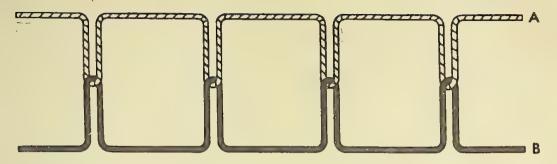
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 204

This type of stitch shall be formed with one needle thread, which shall be passed through the material and brought back one stitch length and then passed back up through the material. The needle shall be moved diagonally across the material and forward one stitch length.

passed through the material, brought back one stitch length and again passed to the surface of the material. This process shall be repeated to form a crisscross pattern of stitches on the surface and parallel rows of separated and offset stitches on the underside of the material.



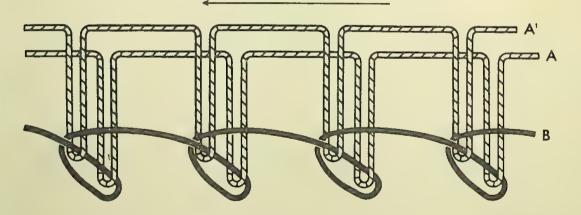
## STITCH TYPE 301

This type of stitch shall be formed with two threads: one needle thread, A, and one bobbin thread, B. A loop of thread A shall be passed through the material and interlaced with thread

B. Thread A shall be pulled back so that the interlacing shall be midway between surfaces of the material or materials being sewn.

Stitch Type 302 August 14, 1959

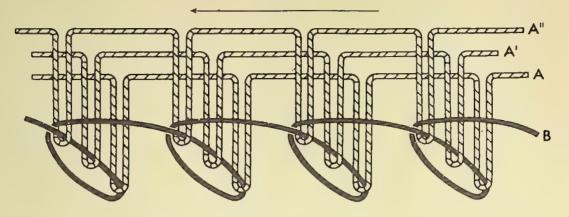
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 302

This type of stitch shall be formed with three threads: two needle threads, A and A', and one bobbin thread, B. Loops of threads A and A'

shall be passed through the material and interlaced with thread B. The interlacings shall be on the underside of the material.



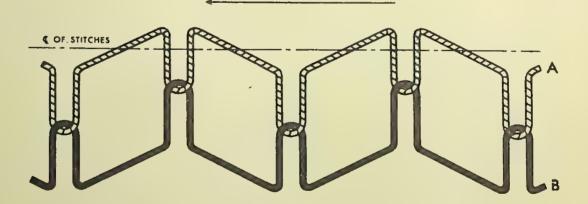
## STITCH TYPE 303

This type of stitch shall be formed with four threads: three needle threads, A and A' and A'', and one bobbin thread, B. Loops of threads A,

A' and A'' shall be passed through the material and interlaced with thread B. The interlacings shall be on the underside of the material.

Stitch Type 304 August 14, 1959

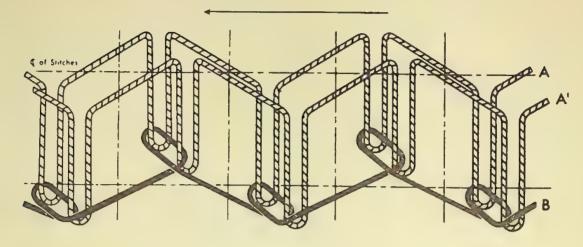
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 304

This type of stitch shall be formed with two threads: one needle thread, A, and one bobbin thread, B. This stitch type is exactly the same

as stitch type 301 except that successive single stitches form a symmetrical zigzag pattern.



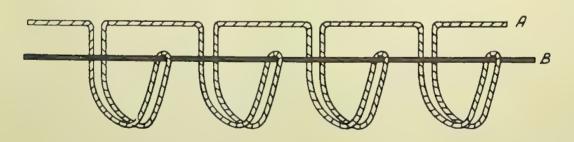
## STITCH TYPE 305

This type of stitch shall be formed with three threads: two needle threads, A and A', and one bobbin thread, B. Loops of threads A and A' shall be passed through the material and inter-

laced with thread B and the interlacing shall be left on the underside of the material. Successive single stitches form a symmetrical zigzag pattern.

Stitch Type 306 August 14, 1959

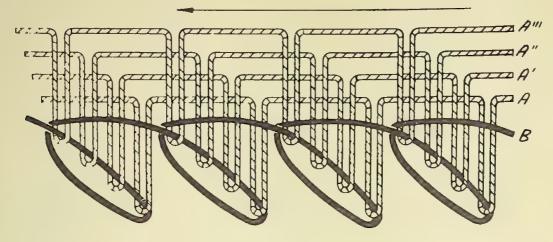
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 306

This type of stitch shall be formed with two threads: one needle thread, A, and one bobbin thread, B. Loops of thread A shall be passed through the top ply of material and horizon-

tally through portions of the bottom ply without penetrating it the full depth and shall be interlaced with thread B on the top surface of the bottom ply of material.



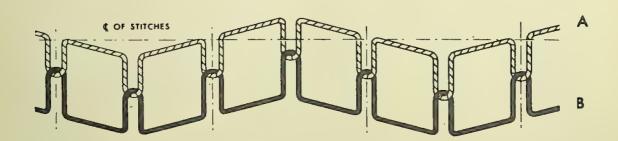
# STITCH TYPE 307

This type of stitch shall be formed with five threads: four needle threads, A, A', A'', A''', and one bobbin thread, B. Loops of threads A,

A', A'', A''', shall be passed through the material and interlaced with thread B. The interlacings shall be on the underside of the material.

Stitch Type 308 August 14, 1959

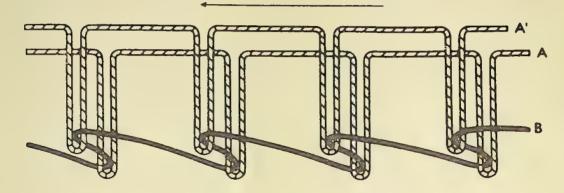
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 308

This type of stitch shall be formed with two threads: one needle thread, A, and one bobbin thread, B. This stitch type is the same as

Stitch Type 304 except that successive pairs of stitches form a symmetrical zigzag pattern.

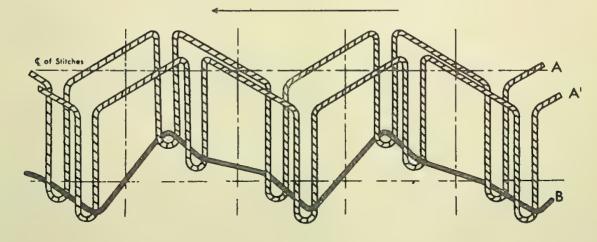


#### STITCH TYPE 309

This type of stitch shall be formed with three threads: two needle threads, A and A', and one bobbin thread, B. Loops of threads A and A' shall be passed through the material and interlaced with thread B. The interlacings shall be left on the underside of the material.

Stitch Type 310 August 14, 1959

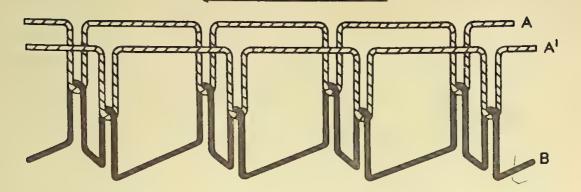
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 310

This type of stitch shall be formed with three threads: two needle threads, A and A', and one bobbin thread, B. Loops of threads A and A' shall be passed through the material and inter-

laced with thread B, and the interlacings shall be left on the underside of the material. Successive single stitches form a symmetrical zigzag pattern.



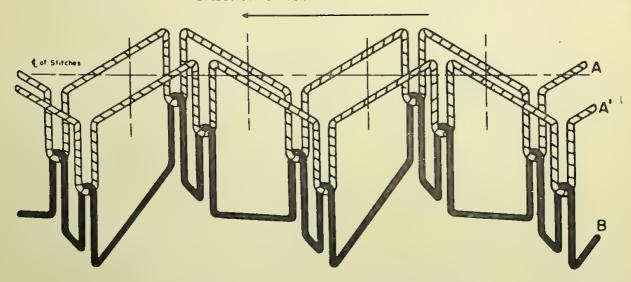
## STITCH TYPE 314

This type of stitch shall be formed with three threads: two needle threads, A and A', and one bobbin thread, B. Loops of threads A and A' shall be passed through the material and inter-

laced with thread B. Threads A and A' shall be pulled back so that the interlacings shall be midway between surfaces of the material or materials being sewn.

Stitch Type 312 August 14, 1959

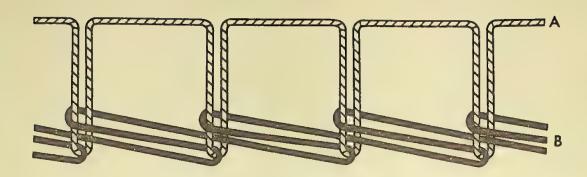
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



#### STITCH TYPE 312

This type of stitch shall be formed with three threads: two needle threads, A and A', and one bobbin thread, B. This stitch type is exactly

the same as Stitch Type 311 except that successive single stitches form a symmetrical zigzag pattern.



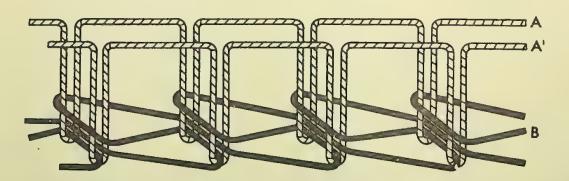
## STITCH TYPE 401

This type of stitch shall be formed with two threads: one needle thread, A, and one looper thread, B. Loops of thread A shall be passed through the material and interlaced and interlooped with loops of thread B. The interloopings shall be drawn against the underside of the bottom ply of material.

1000 :

Stitch Type 402 August 14, 1959

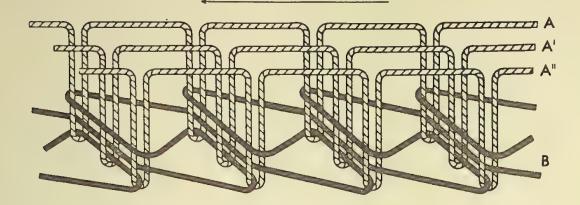
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



# STITCH TYPE 402 Double chain some

This type of stitch shall be formed with three threads: two needle threads A and A' and one looper thread, B. Loops of threads A and A' shall be passed through the material and inter-

laced and interlooped with loops of thread B. The interloopings shall be drawn against the underside of the material.



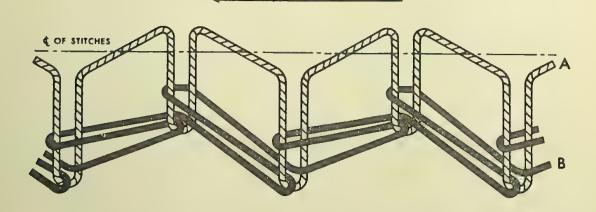
## STITCH TYPE 403

This type of stitch shall be formed with four threads: three needle threads, A, A' and A'' and one looper thread, B. Loops of threads A, A' and A'' shall be passed through the ma-

terial and interlaced and interlooped with loops of thread B. The interloopings shall be drawn against the underside of the material.

Stitch Type 404 August 14, 1959

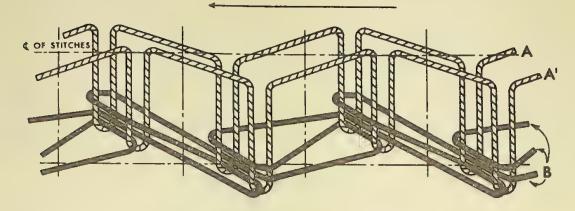
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 404

This type of stitch shall be formed with two threads: one needle thread, A, and one looper thread, B. This stitch is the same as Stitch

Type 401 except that successive single stitches form a symmetrical zigzag pattern.



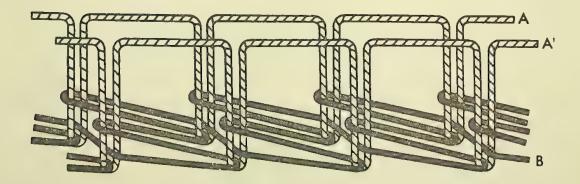
## STITCH TYPE 405

This type of stitch shall be formed with three threads: two needle threads, A and A', and one looper thread, B. This stitch is the

same as stitch type 402 except that successive stitches form a symmetrical zigzag pattern.

Stitch Type 406 August 14, 1959

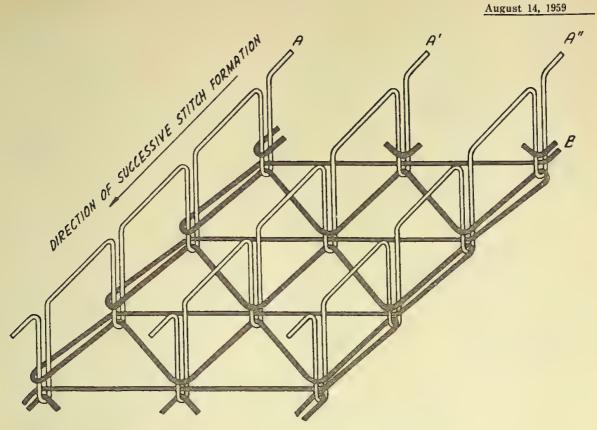
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 406

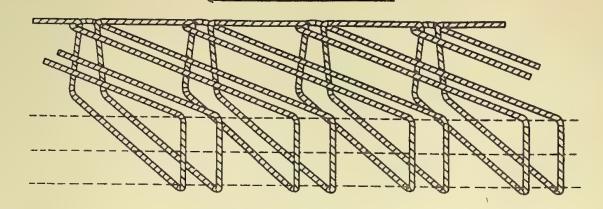
This type of stitch shall be formed with three threads: two needle threads, A, and A' and one looper thread, B. Loops of threads A and A' shall be passed through the material

and interlaced and interlooped with loops of thread B. The interloopings shall be drawn against the underside of the material.



# STITCH TYPE 407

This type of stitch shall be formed with four threads: three needle threads A, A' and A" and one looper thread, B. Loops of threads A, A' and A" shall be passed through the material and shall be drawn against the underside of the material.

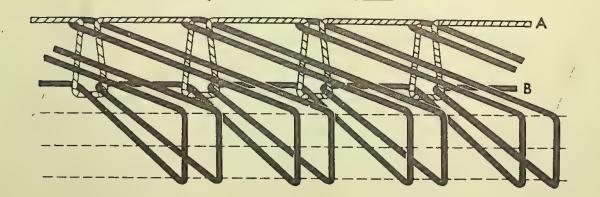


## STITCH TYPE 501

This type of stitch shall be formed with one needle thread which shall be passed through and around the edge of the material as a loop and interlooped with itself at the point of needle penetration of the stitch on the surface of the material.

> Stitch Type 502 August 14, 1959

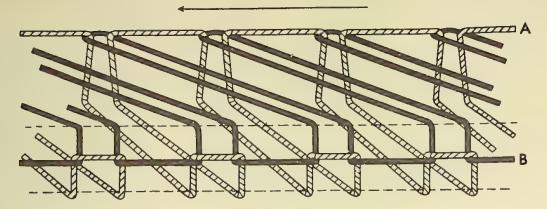
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 502

This type of stitch shall be formed with two threads: one needle thread, A, and one looper thread, B. Loops of thread A shall be passed through the material and interlooped with thread B at the point of penetration on the

underside of the material. Loops of thread B shall be brought around the edge of the material and interlooped with thread A at the next stitch on the surface of the material.



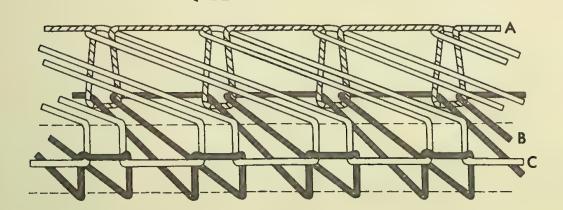
## STITCH TYPE 503

This type of stitch shall be formed with two threads: one needle thread, A, and one looper thread, B. Loops of thread A shall be passed through the material and brought to the edge where they shall be interlooped with thread B.

The loops of thread B shall be extended from this interlooping to the point of needle penetration of the next stitch and there interlooped with thread A.

> Stitch Type 504 August 14, 1959

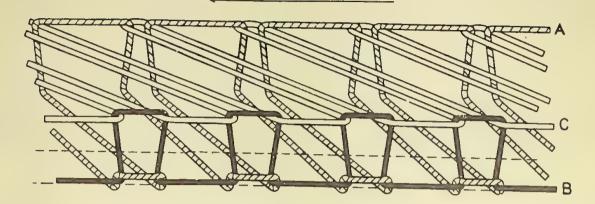
#### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 504

This type of stitch shall be formed with three threads: one needle thread, A; one looper thread, B; and one cover thread, C. Loops of thread A shall be passed through the material and interlooped with loops of thread B at the point of penetration on the underside of the

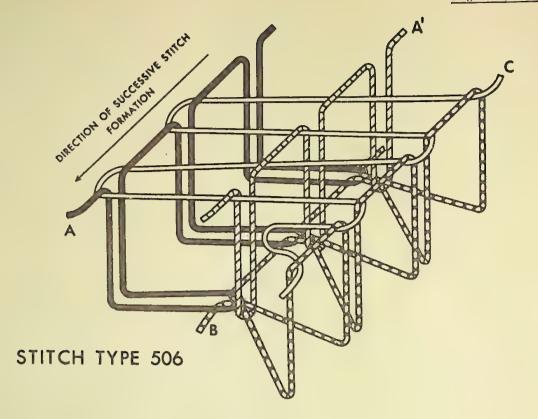
material. The loops of thread B shall be extended to the edge of the material and there interlooped with loops of thread C. Loops of thread C shall be extended from this interlooping to the point of needle penetration of the next stitch and there interlooped with thread A.



## STITCH TYPE 505

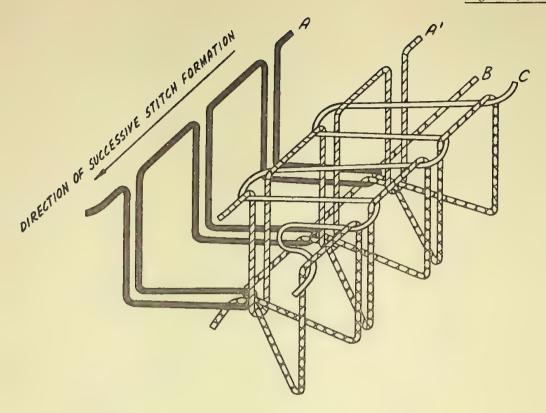
This type of stitch shall be formed with three threads: one needle thread, A; one looper thread, B; and one cover thread C. Loops of thread A shall be passed through the material and extended to the edge where they shall be interlooped with loops of thread B. The loops

of thread B shall be brought up to the top edge of the material and there interlooped with loops of thread C. The loops of thread C shall be extended to the point of needle penetration of the next stitch and there interlooped with thread A.



This type of stitch shall be formed with four threads: two needle threads, A and A'; one looper thread, B; and one cover thread, C. Loops of threads A and A' shall be passed through the material and the loops of thread A shall be extended to the point of needle penetration of the loops of thread A'. Loops of threads A and A' shall be interlooped with

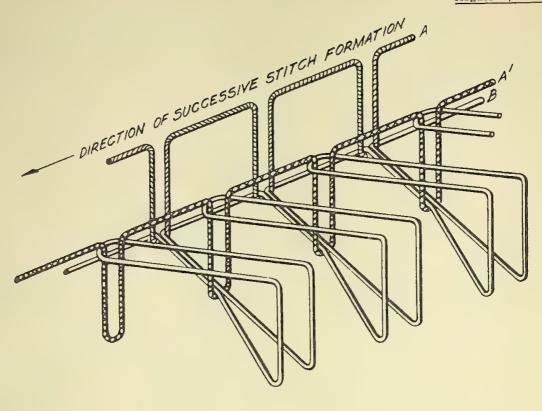
loops of thread B at this point. The loops of thread B shall be brought around the edge of the material and interlooped with loops of thread C. The loops of thread C shall be extended to the point of needle penetration of threads A and A', where they shall be entered by the next stitch of those threads.



# STITCH TYPE 507

This type of stitch shall be formed with four threads: two needle threads, A and A'; one looper thread, B; and one cover thread, C. Loops of threads A and A' shall be passed through the material and the loops of thread A shall be extended to the point of needle penetration of the loops of thread A'. Loops of threads A and A' shall be interlooped with

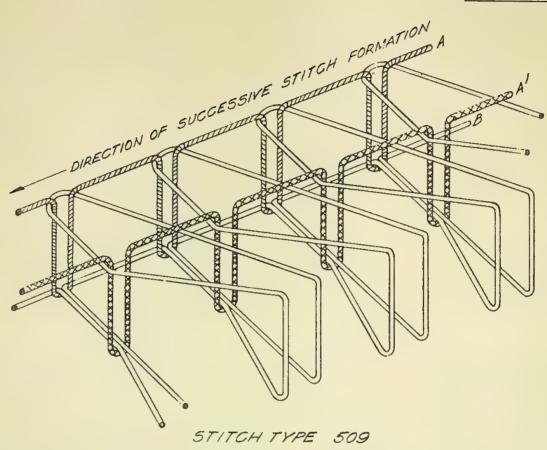
loops of thread B at this point. The loops of thread B shall be brought around the edge and interlooped with loops of thread C. The loops of thread C shall be extended to the point of needle penetration of thread A' at the next stitch where they shall be entered by loops of that thread.



### STITCH TYPE 508

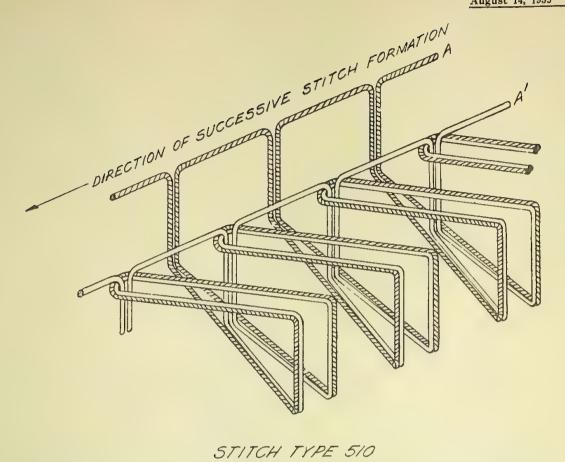
This type of stitch shall be formed with three threads: two needle threads, A and A', and one looper thread, B. Loops of threads A and A' shall be passed through the material where they shall be interlooped at the lower point

of penetration with thread B. Loops of thread B shall be brought around the edge of the material and interlooped with thread A' at the next stitch on the surface of the material.



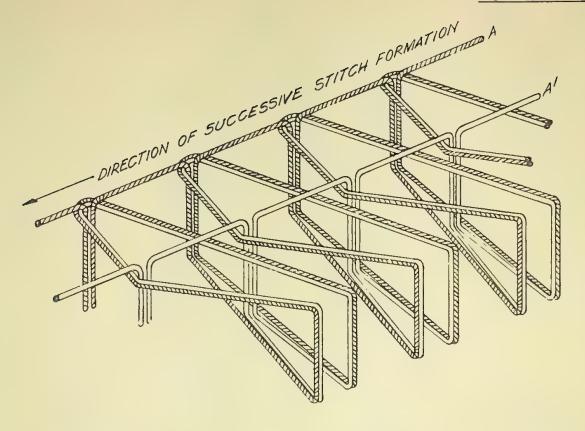
This type of stitch shall be formed with three threads: two needle threads, A and A', and one looper thread, B. Loops of threads A and A' shall be passed through the material where they shall be interlooped at the lower point of

penetration with loops of thread B. Loops of thread B shall be brought around and cast on the surface of the material where they shall be entered by loops of threads A and A'.



This type of stitch shall be formed with two needle threads, A and A', which shall be passed through and around the edge to the surface of

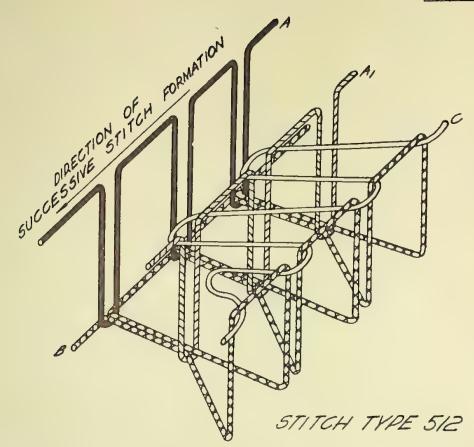
the material as loops and interlooped with thread A' at the point of needle penetration.



## STITCH TYPE 511

This type of stitch shall be formed with two needle threads, A and A'. Loops of threads A and A' shall be passed through the material, brought around the edge and cast on the upper

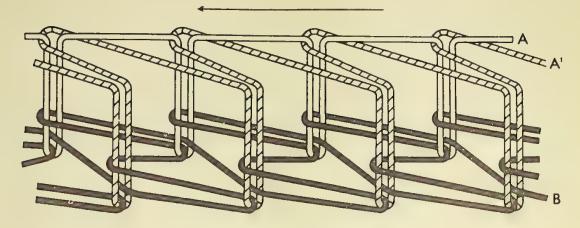
surface where they shall be entered by loops of themselves at the point of needle penetration of the next stitch.



This type of stitch shall be formed with four threads: two needle threads, A and A'; one looper thread, B; and one cover thread, C. Loops of threads A and A' shall be passed through the material where they shall be interlooped at the lower point of penetration with

thread B. The loops of thread B shall be brought around the edge and interlooped with loops of thread C. The loops of thread C shall be extended to the point of needle penetration of thread A' at the next stitch where they shall be entered by loops of that thread.

#### DIRECTION OF SUCCESSIVE STITCH FORMATION



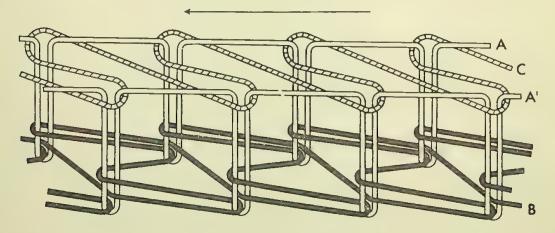
# STITCH TYPE 601

This type of stitch shall be formed with three threads; two needle threads, A and A', and one looper thread, B. Loops of threads A and A' shall be passed through the material where they shall be interlooped with thread B on the under-

side. Loops of thread A' shall be extended across the material to the point of needle penetration of the next stitch of thread A where they shall be entered by a loop of that thread as it enters the fabric to make the next stitch.

Stitch Type 602 August 14, 1959

#### DIRECTION OF SUCCESSIVE STITCH FORMATION

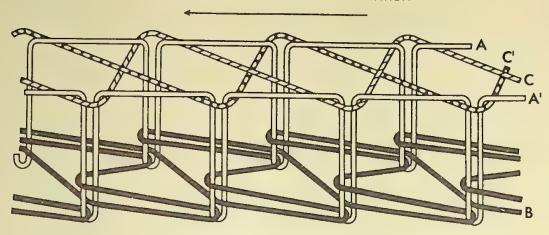


## STITCH TYPE 602

This type of stitch shall be formed with four threads: two needle threads, A and A'; one looper thread, B; and one cover thread, C. Loops of threads A and A' shall be passed

through loops of thread C already cast across the top surface of the material, and then through the material where they shall be interlooped with loops of thread B on the underside.

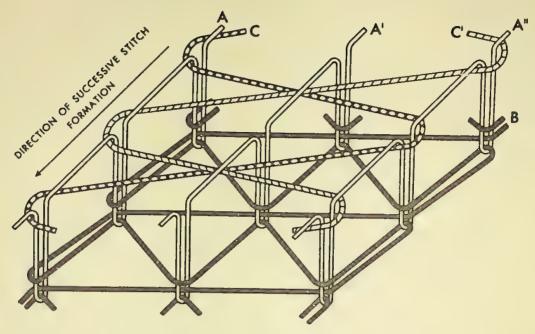
### DIRECTION OF SUCCESSIVE STITCH FORMATION



## STITCH TYPE 603

This type of stitch shall be formed with five threads: two needle threads, A and A'; one looper thread, B; and two cover threads, C and C'. Loops of threads A and A' shall be passed

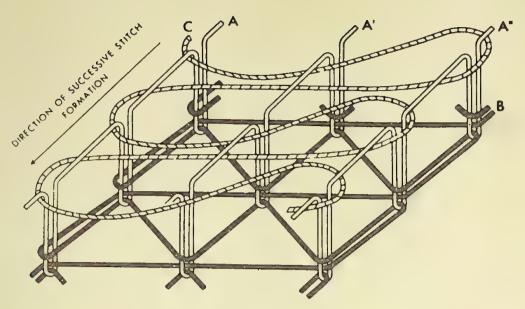
through loops of threads C and C' already cast across the surface of the material and then through the material and interlooped with loops of thread B on the underside of the material.



STITCH TYPE 604

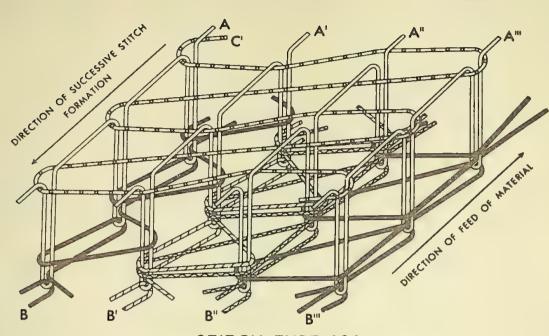
This type of stitch shall be formed with six threads: three needle threads, A, A' and A''; one looper thread, B; and two cover threads, C and C'. Loops of threads A, A' and A'' shall

be passed through loops of threads C and C' already cast across the surface of the material, and then through the material where they shall be interlooped with thread B on the underside.



STITCH TYPE 605

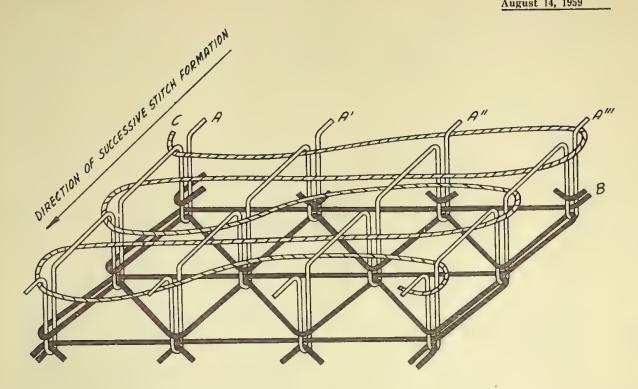
This type of stitch shall be formed with five threads: three needle threads, A, A' and A''; one looper thread, B; and one cover thread, C. Loops of threads A, A' and A'' shall be passed through loops of thread C already cast on the top surface of the material and then through the material where they shall be interlooped with loops of thread B on the underside.



STITCH TYPE 606

This type of stitch shall be formed with nine threads: four needle threads, A, A', A'' and A'''; four looper threads, B, B', B'' and B'''; and one cover thread, C. Loops of threads A, A', A'' and A''' shall be passed through loops of thread C already cast on the top surface of

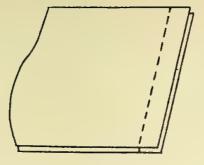
the material, and then through the material where they shall be interlooped with loops of the B threads on the underside as follows: A and A' with B; A' and A'' with B' and B''; A'' and A''' with B'''.



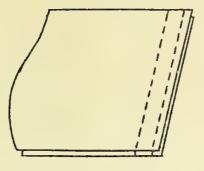
STITCH TYPE 607

This type of stitch shall be formed with six threads: four needle threads, A, A', A'' and A'''; one looper thread, B; and one cover thread, C. Loops of threads A, A', A'' and A''' shall be passed through loops of thread

C already cast on the surface of the material, and then through the material where they shall be interlooped with loops of thread B on the underside.

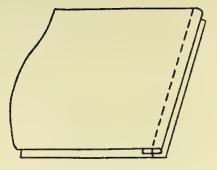


Seam type SSa-1

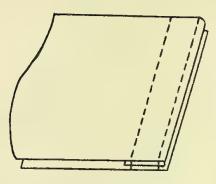


Seam type SSa-2

This type of seam shall be formed by superimposing two or more plies of material and seaming them with one or more rows of stitches a specified distance from their edges.

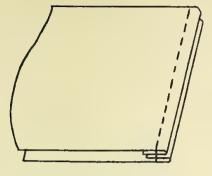


Seam type SSb-1

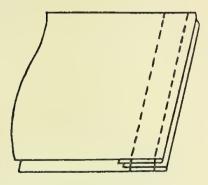


Seam type SSb-2

This type of seam shall be formed by superimposing two plies of material, turning in the edge of one ply a specified distance to the inside and seaming the plies with one or more rows of stitches.

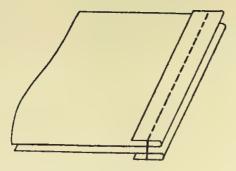


Seam type SSc-1



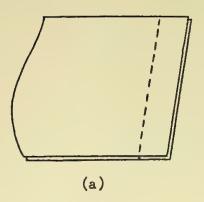
Seam type SSc-2

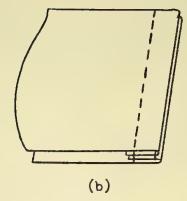
This type of seam shall be formed by superimposing two plies of material, turning the edges of both plies a specified distance to the inside and seaming through the turned edges with one or more rows of stitches a specified distance from the edges.



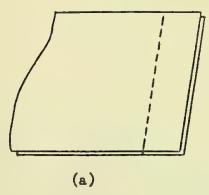
Seam type SSd-1

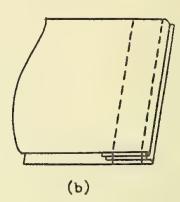
This type of seam shall be formed by superimposing two plies of material, turning the edge of both plies a specified distance outwardly and seaming with one or more rows of stitches.





Seam type SSe-2

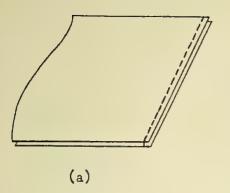


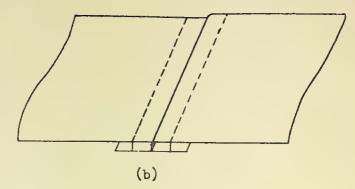


Seam type SSe-3

- (a) superimposing two plies of material and seaming with one row of stitches a specified distance from the edge, (seam type SSa-1), and
- (b) turning both plies of material at the first seaming to cover the raw edges and seaming with one or more rows of stitches through the folded edges.

Seam Type SSh

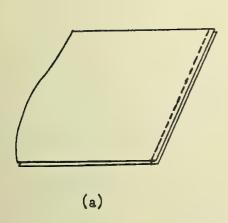


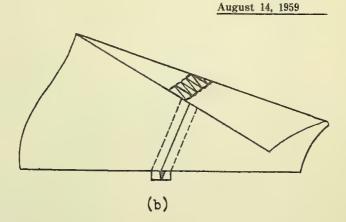


Seam type SSf-3

This type of seam shall be formed by:

- (a) superimposing two plies of material and seaming with one row of stitches, a specified distance from the edge (Seam Type SSa-1), and
- (b) opening both plies of the material and seaming a reinforcing tape over the raw edges of the material with two rows of stitches a specified distance apart.

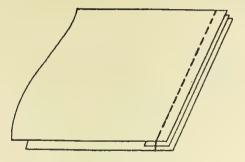




Seam type SSh-2

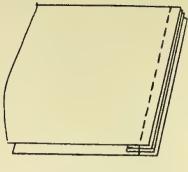
This type of seam shall be formed by:

- (a) superimposing two plies of material and seaming with one row of stitches, a specified distance from the edge (Seam Type SSa-1), and
- (b) opening the plies of material and sewing with a row of covering stitches over the trimmed edges.

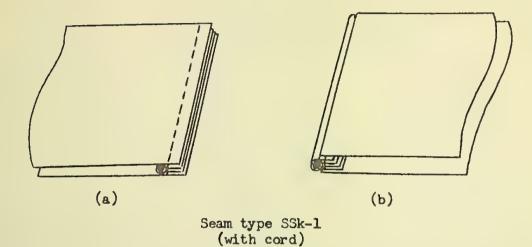


Seam type SSj-1

This type of seam shall be formed by superimposing two or more plies of material, inserting a plain narrow strip of material between and seaming with one or more rows of stitches a specified distance from the near edge.

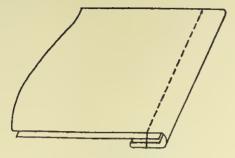


Seam type SSk-1



This type of seam shall be formed by inserting a folded strip of material, with or without a cord as specified, between two superimposed

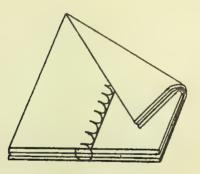
plies of material and seaming with one or more rows of stitches.



Seam type SS1-1

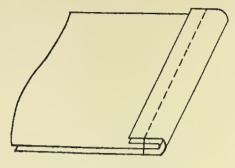
This type of seam shall be formed by superimposing one ply of material on another a sufficient distance from the edge to permit turning the edge of one ply of the material under and in, a specified distance around the edge of the other ply, and seaming with one row of stitches.

> Seam Type SSm August 14, 1959



Seam type SSm-1

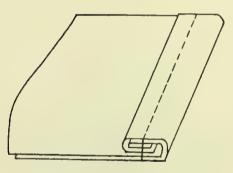
This type of seam shall be formed by superimposing two or more plies of material and seaming with one row of stitches in such a manner that the thread passes only partially through the thickness of the last or outer ply. The thread shall not show on the outer side of the last ply unless otherwise specified.



## Seam type SSn-1

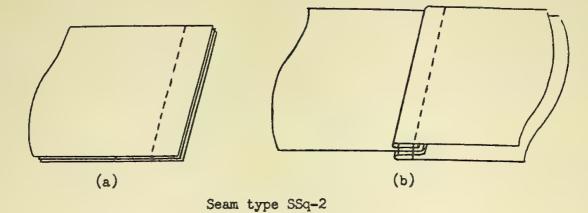
This type of seam shall be formed by superimposing two or more plies of material, folding both the edges back over the body of material a specified distance and seaming with one row of stitches.

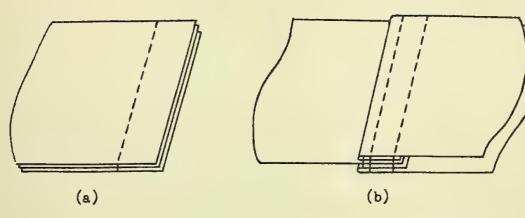
> Seam Type SSp August 14, 1959



Seam type SSp-1

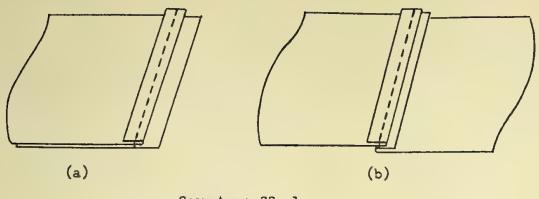
This type of seam shall be formed by superimposing two or more plies of material, turning the edges back over the body of material and in, under that fold a specified distance, and seaming with one row of stitches.



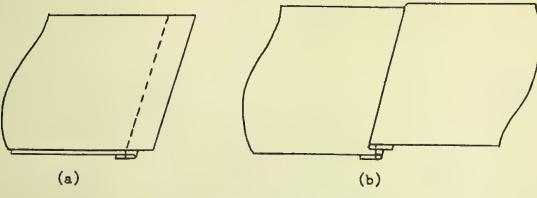


Seam type SSq-3

- (a) superimposing three or more plies of material and seaming with one row of stitches a specified distance from the edge (seam type SSa-1), and
- (b) turning the two outer plies back over their edges and seaming with one or more rows of stitches.

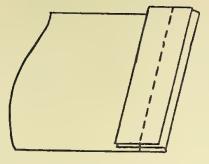


Seam type SSr-1

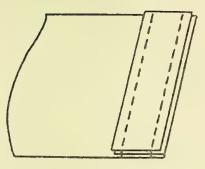


Seam type SSr-1 (Inverted)

This type of seam shall be formed by superimposing two plies of material, turning the edge of one ply of material and seaming through the turned edge and plies of material with one row of stitches.

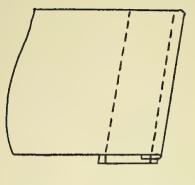


Seam type SSs-1

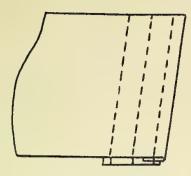


Seam type SSs-2

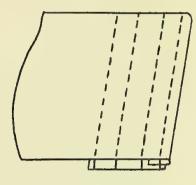
This type of seam shall be formed by superimposing a tape, webbing or narrow piece of fabric over the turned edge of a ply or plies of material and seaming with one or more rows of stitches through the turned edge.



Seam type SSt-2

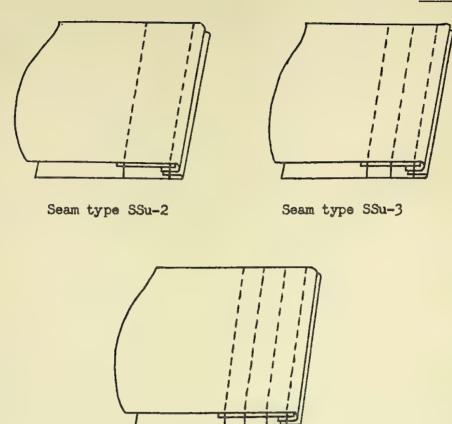


Seam type SSt-3



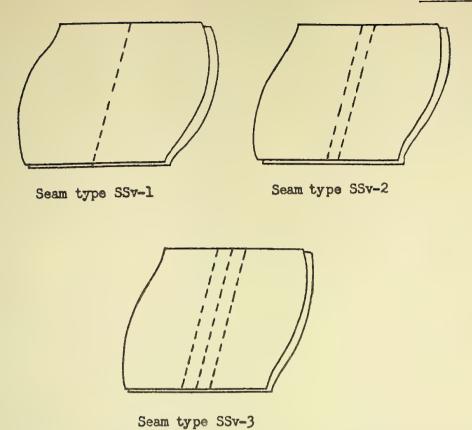
Seam type SSt-4

This type of seam shall be formed by superimposing a ply or plies of material with the outer edge turned, on a tape, webbing or narrow strip of fabric and seaming with two or more rows of stitches, with only the row nearest the folded edge going through the fold.



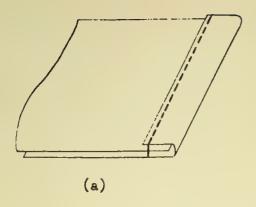
Seam type SSu-4

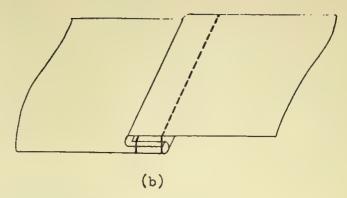
This type of seam shall be formed by turning the edges of two plies of material inwardly, inserting a tape or strip of material within the inturned upper ply, and stitching with two or more rows of stitches, with only the row nearest the folded edge going through the folds.



This type of seam shall be formed by superimposing and seaming two or more plies of material with one or more rows of stitches where evenly spaced lines of stitches are required in the body of the materials, as in quilting comforters, clothing linings, etc.

Seam Type SSx

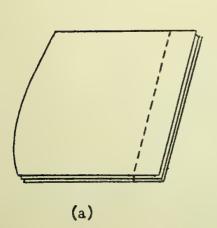


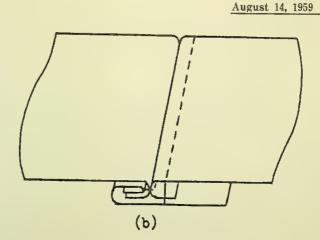


Seam type SSw-2

This type of seam shall be formed by:

- (a) superimposing two pieces of material, turning the edge of one ply of material over the edge of the second ply, and seaming with one row of stitches, and
- (b) turning back the body of the upper ply over the folded lower ply and seaming with one row of stitches.





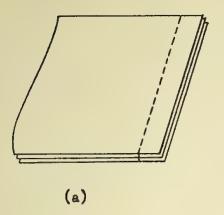
Seam type SSx-2

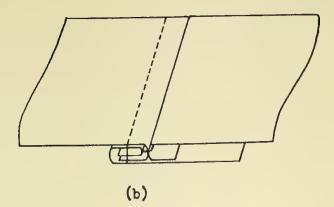
This type of seam shall be formed by:

- (a) superimposing and seaming three plies of material as in seam type SSa-1 with a single row of stitches a specified distance from the edges, and
  - (b) turning back the edges of the middle and

bottom plies and the body of the bottom ply over these turned edges, turning back the edge of the top ply and the body of the top ply and seaming through the body and the turned edge of the top ply, and the body of the bottom ply with one row of stitches.

Seam Type SSz



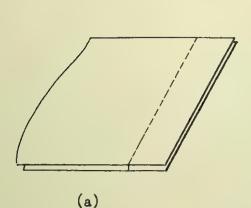


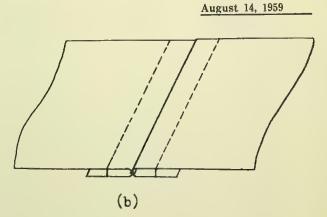
Seam type SSy-2

This type of seam shall be formed by:

- (a) superimposing and seaming three plies of material in seam type SSa-1 with a single row of stitches a specified distance from the edge and
  - (b) turing back the edges of the middle and

bottom plies and the body of the bottom ply over these turned edges, turning back the edge of the top ply and the body of the top ply and seaming through the body of the middle ply, the turned edges of the middle and bottom ply and the body of the bottom ply.



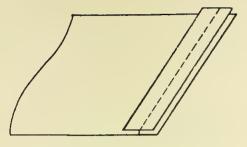


Seam type SSz-3

This type of seam shall be formed by:

- (a) superimposing and seaming two plies of material in seam type SSa-1 and
  - (b) opening the two plies and turning the

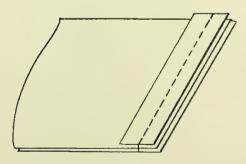
edges of each ply back under the body of the ply and seaming through the turned edge of each ply with one row of stitches.



Seam type SSaa-1

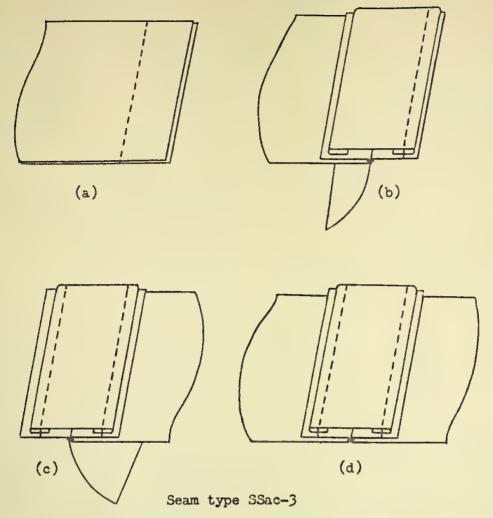
This type of seam shall be formed by superimposing a strip on one ply of material and seaming with one or more rows of stitches.

> Seam Type SSab August 14, 1959



Seam type SSab-1

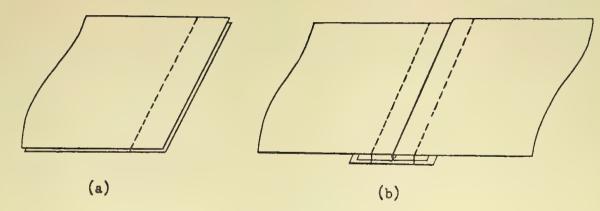
This type of seam shall be formed by superimposing a strip on two plies of material and seaming with one or more rows of stitches.



- (a) superimposing two plies of material and seaming with one row of stitches a specified distance from the edges in seam type SSa-1, and
  - (b) turning one ply aside and seaming its

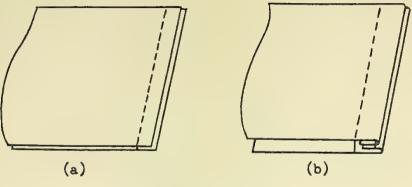
edge to a strip with its edges turned in,

- (c) turning the other ply aside and seaming its edge to the strip, and
- (d) opening both plies of .naterial to finish as shown.

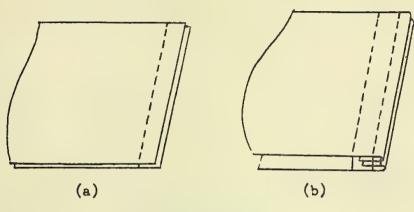


Seam type SSad-3

- (a) superimposing two plies of material and seaming with one row of stitches a specified distance from the edges in seam type SSa-1, and
- (b) opening the two plies, turning the edge of each ply under the body, superimposing to a reinforcing strip and seaming through the body, turned edge, and reinforcement strip.



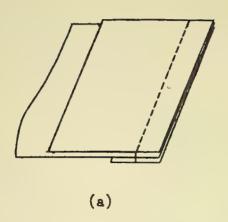
Seam type SSae-2

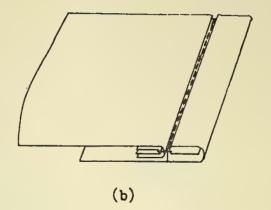


Seam type SSae-3

- (a) superimposing two plies of material and seaming with a row of stitches a specified distance from the edges in seam type SSa-1, and
  - (b) turning both plies of material over their

edges and seaming with one or more rows of stitches. When more than one row of stitches are used, one row shall pass through the folded edges.

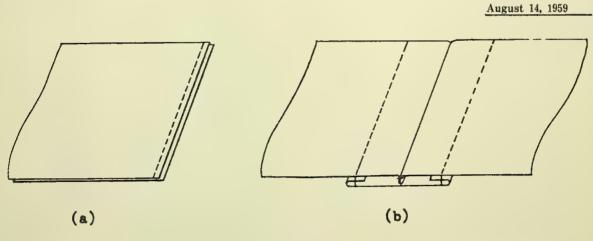




Seam type SSaf-2

- (a) superimposing a welt strip on the body of a material which is superimposed on a stay piece and seaming with one row of stitches, and
  - (b) opening the seam by turning the welt

strip over on itself and under the body material and stay piece, the edges of which shall have been turned, and seaming through the first seam and welt strip.



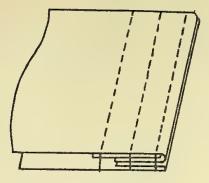
#### Seam type SSag-3

This type of seam shall be formed by:

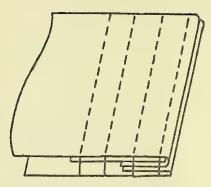
- (a) superimposing two plies of material and seaming in seam type SSa-1, and
  - (b) opening each ply and superimposing

these over a reinforcing strip whose edges are turned in a specified distance, and seaming with two rows of stitches through the reinforcing strip.

Seam Type SSag

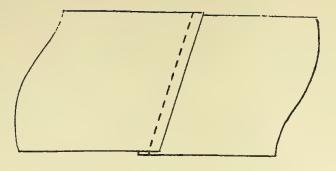


Seam type SSah-3

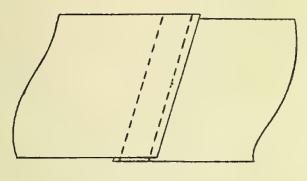


Seam type SSah-4

This type of seam shall be formed by turning the edge of one ply of material around a tape and superimposing this on another ply with edge turned up and stitching with three or more rows of stitches, two rows of which shall be through the turned edges.

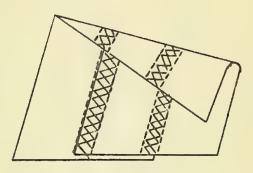


Seam type LSa-1



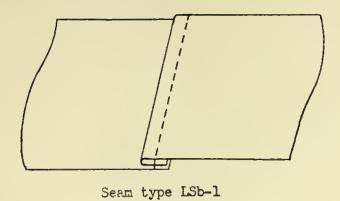
Seam type LSa-2

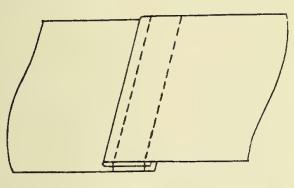
This type of seam shall be formed by overlapping two or more plies of material a speci-



Seam type LSa-2

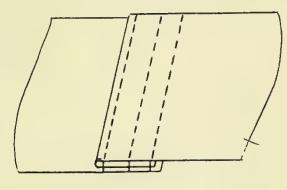
fied distance and seaming with one or more rows of stitches.





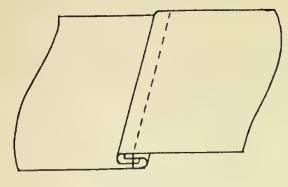
Seam type LSb-2

This type of seam shall be formed by folding under the edge of one ply of the material over-

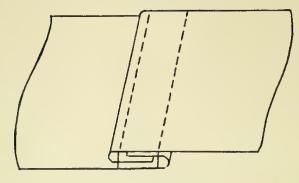


Seam type LSb-3

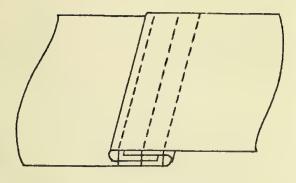
lapping it at the edge of another ply and seaming with one or more rows of stitches.



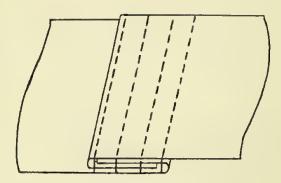
Seam type LSc-1



Seam type LSc-2

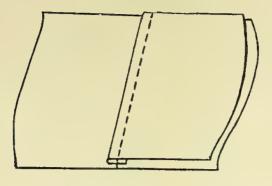


Seam type LSc-3

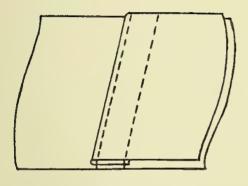


Seam type LSc-4

This type of seam shall be formed by folding in and interlapping the edges of two plies of material so that the edges of the material are concealed and seaming with one or more rows of stitches.

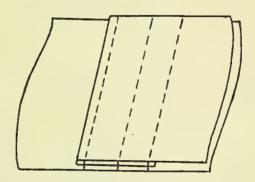


Seam type LSd-1



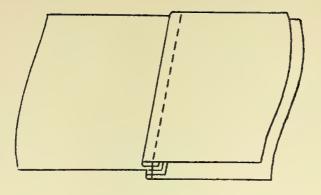
Seam type LSd-2

This type of seam shall be formed by folding under the edge of one ply of material, lapping it on the body of another ply of material a spec-

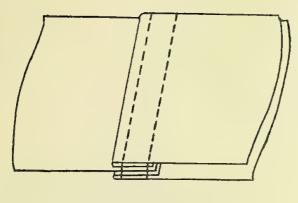


Seam type LSd-3

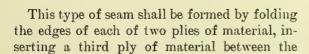
ified distance from the edge, and seaming with one or more rows of stitches,

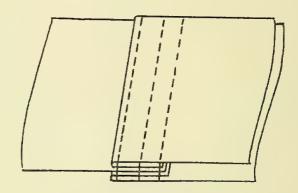


Seam type LSe-1



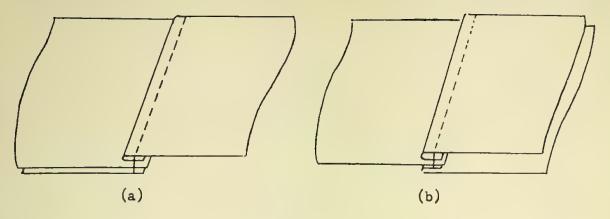
Seam type LSe-2



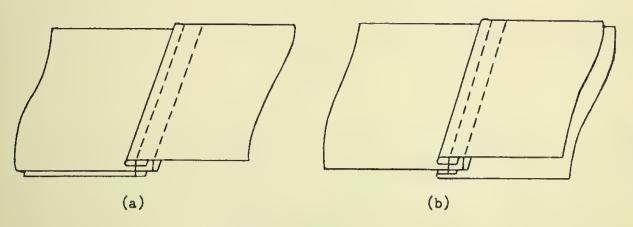


Seam type LSe-3

folded edges and seaming all plies with one or more rows of stitches.



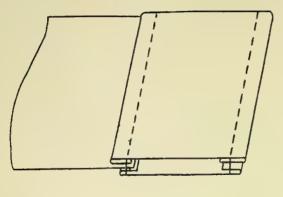
Seam type LSf-1

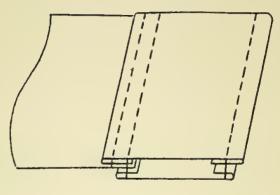


Seam type LSf-2

This type of seam shall be formed by:

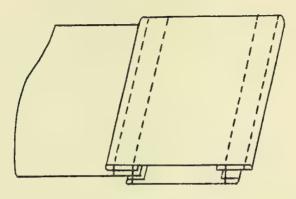
- (a) folding the edge of one ply of material, lapping it on two or more other plies and seaming with one or more rows of stitches. When more than one row of stitches are used, the
- inner ply shall be extended so that the second row of stitches does not go through the bottom ply, and
- (b) the bottom ply then shall be turned back to lie under the top ply (figure b).





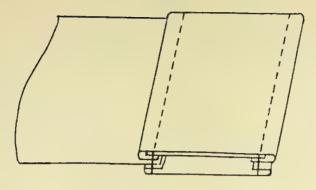
Seam type LSg-2

Seam type LSg-3

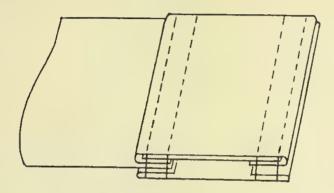


Seam type LSg-4

This type of seam shall be formed by folding in both edges of two plies of material, inserting a third ply of material between the folded edges on one side and seaming each side with one or more rows of stitches.

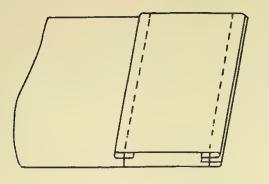


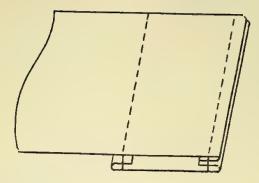
Seam type LSj-2



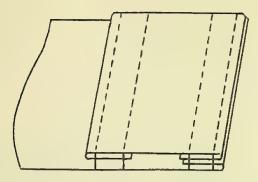
Seam type LSj-4

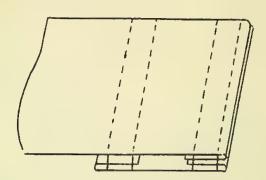
This type of seam shall be formed by folding both edges of two plies of material, inserting a strip in the fold of the top ply, inserting the body material between the folded edges of both plies on one side and seaming with two or more rows of stitches.





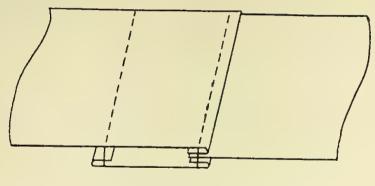
Seam type LSk-2



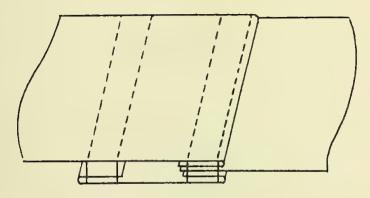


Seam type LSk-4

This type of seam shall be formed by folding both edges of a strip of material and lapping it on the body material whose edge has been folded in, and seaming with two or more rows of stitches.

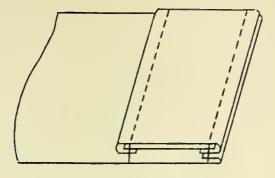


Seam type LS1-2

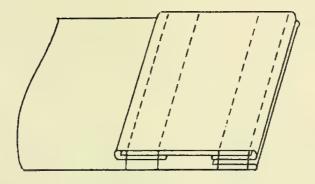


Seam type LS1-4

This type of seam shall be formed by folding the edge of a body material, folding both edges of a strip of material, inserting one or more plies of material between the inturned edges of the body material and the strip, and seaming with two or more rows of stitches.

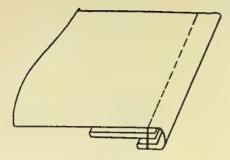


Seam type LSm-2



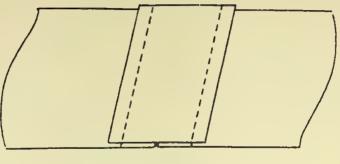
Seam type LSm-4

This type of seam shall be formed by folding the edges of a ply of material over a strip, and lapping these two materials over a body material, whose edge has been folded in, and seaming with two or more rows of stitches.

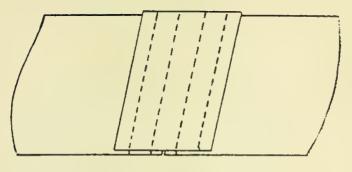


## Seam type LSn-1

This type of seam shall be formed by double folding the edge of a body material as for a hem (EFb) inserting a folded strip of material between the folded edge and the body of the body material and seaming with one or more rows of stitches.

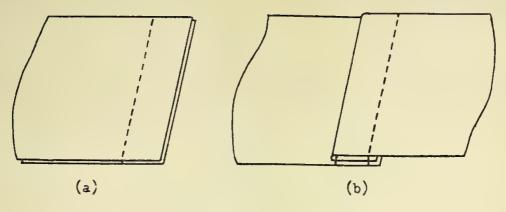


Seam type LSp-2

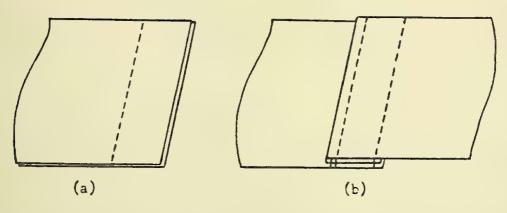


Seam type LSp-4

This type of seam shall be formed by overlapping a strip of material over the abutted edges of two or more pieces of material and seaming with two or four rows of stitches.



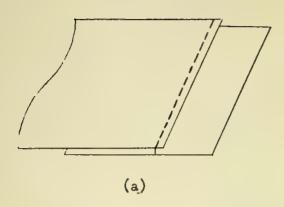
Seam type LSq-2

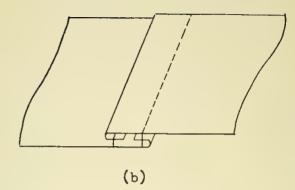


Seam type LSq-3

This type of seam shall be formed by:
(a) superimposing two plies of material and seaming as in seam type SSa-1, and

(b) the top ply shall then be turned back sharply over the first row of stitching and seamed with one or more rows of stitches.

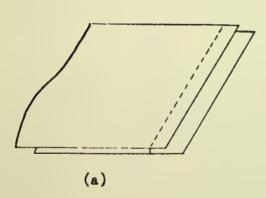


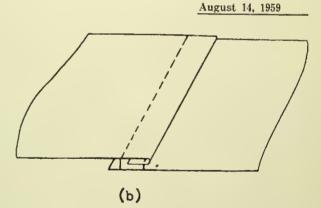


Seam type LSr-2

This type of seam shall be formed by:

- (a) overlapping two plies of material with their edges a specified distance apart and seaming with one row of stitches a specified distance from the edge of the top ply, and
- (b) turning the top ply over the first row of stitching, folding in the edge of the bottom ply and seaming with a second row of stitches through top ply and turned edge of bottom ply.



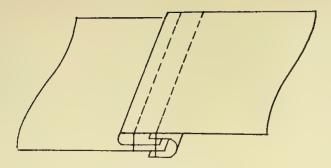


Seam type LSs-2

This type of seam shall be formed by:

- (a) overlapping two plies of material with their edges a specified distance apart and seaming with one row of stitches a specified distance from the edge of the top ply, and
- (b) turning the bottom ply at the first seam and seaming with a second row of stitches through the bodies of top and bottom plies.

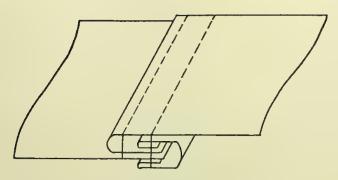
Seam Type LSs



Seam type LSt-2

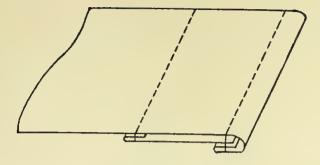
This type of seam shall be formed by folding the edge of one ply of material and lapping it over a second ply, folding a binding strip over the edge of both plies, and seaming with two rows of stitches, only one of which shall secure the binding strip.

> Seam Type LSu August 14, 1959



Seam type LSu-2

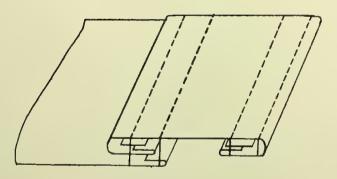
This type of seam shall be formed by turning the edges of one ply of material and lapping it over a second ply, folding a binding strip with both edges folded in over the edge of both plies of material and seaming with two rows of stitches, only one of which shall secure the binding strip.



## Seam type LSv-2

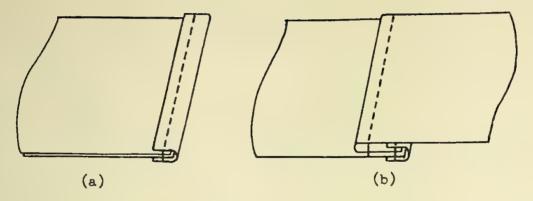
This type of seam shall be formed by double folding the edge of the body material, lapping it over a strip of material so that one edge of the strip is between the body material and its folded edge, folding the opposite edge of the strip, and seaming the strip to the body of the material with two rows of stitches.

Seam Type LSw August 14, 1959

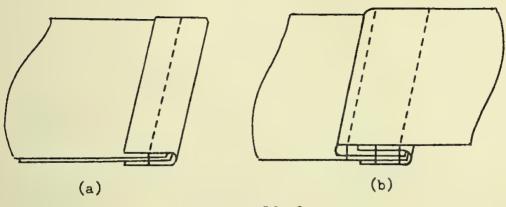


## Seam type LSw-4

This type of seam shall be formed by double folding each edge of a wide strip of material over a narrow strip, and lapping it over the folded edge of a body material and seaming with four rows of stitches.



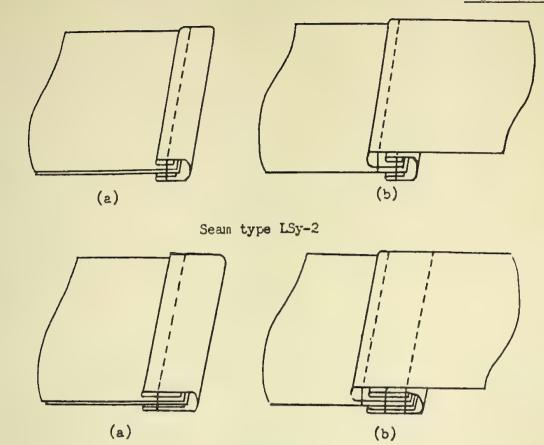
Seam type LSx-2



Seam type LSx-3

This type of seam shall be formed by:

- (a) superimposing two plies of material, folding a binding strip over the edges of the plies, and seaming the plies and binding strip with one row of stitches, and
- (b) turning over the top ply a specified distance from the first row of stitches and seaming with one or more rows of stitches.



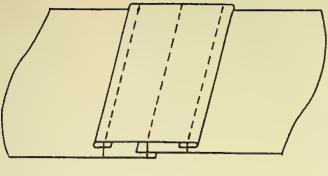
Seam type LSy-3

This type of seam shall be formed by:

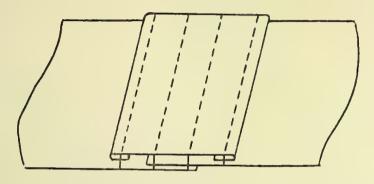
(a) superimposing two plies of material, folding the edges of a binding strip, placing it over the edges of the material and seaming

with one row of stitches, and

(b) turning the top ply a specified distance from the first row of stitches and seaming with one or more rows of stitches.

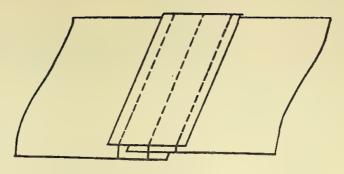


Seam type LSz-3



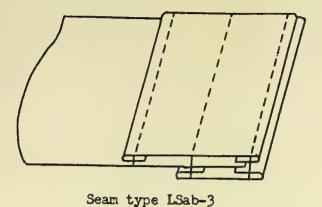
Seam type LSz-4

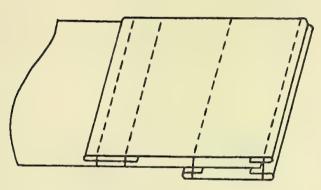
This type of seam shall be formed by overlapping the edges of two or more plies of material, lapping a strip of material with the edges folded in over the overlapped edges and seaming with three or more rows of stitches.



## Seam type LSaa-3

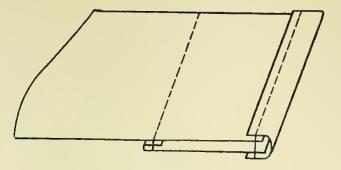
This type of seam shall be formed by overlapping the edges of two or more plies of material, superimposing a strip of material over the overlapping edges and seaming with three rows of stitches.





Seam type LSab-4

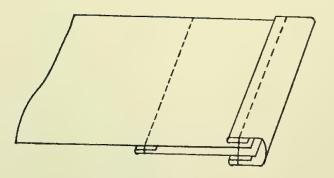
This type of seam shall be formed by folding the edges of a strip of material, lapping it on a second ply and lapping both of these over a third ply substantially different in width with its edges folded, and seaming with three or more rows of stitches as follows: One row shall join the strips on the outer edges; a second row of stitches shall join the top strip, the middle ply and the bottom ply through the turned edge, and the remaining row or rows shall join the top strip to the middle ply.



Seam type LSac-2

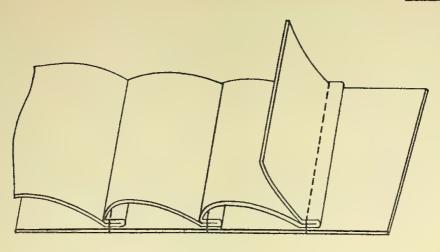
This type of seam shall be formed by lapping a ply of body material over a narrow strip, one edge of which shall be folded in under the top ply, placing a binding strip over the other edges of the strip and body material and seaming with two or more rows of stitches.

Seam Type LSad August 14, 1959



# Seam type LSad-2

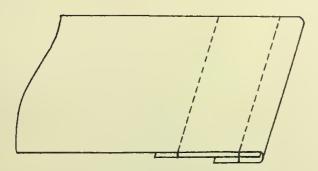
This type of seam shall be formed by lapping a ply of body material over a narrow strip, one edge of which is folded in under the body of the first ply, placing a binding strip with both edges folded in over the other edges of the strip and body material and seaming with two or more rows of stitches.



Seam type LSae-1

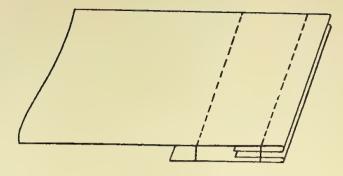
This type of seam shall be formed by lapping one ply of material on to a second ply, folding the top ply back and seaming through the folded portion to the second ply with one or more rows of stitches. Note: the drawing illustrates the basic seam and two repeats.

> Seam Type LSaf August 14, 1959



Seam type ISaf-2

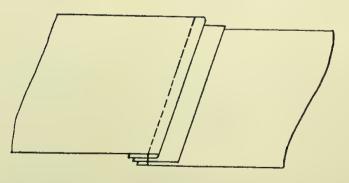
This type of seam shall be formed by lapping one ply of material over a second ply, turning the edge of the first ply around the edge of the second ply and seaming with two or more rows of stitches.



Seam type ISag-2

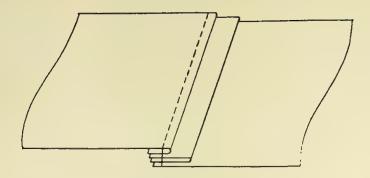
This type of seam shall be formed by lapping one ply of material over a second ply, folding one edge of each ply to the inside, and seaming with two or more rows of stitches.

Seam Type LSah August 14, 1959



Seam type LSah-1

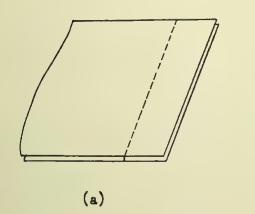
This type of seam shall be formed by lapping the folded edge of one ply of material over a second ply, inserting a strip between and seaming all plies with one or more rows of stitches.

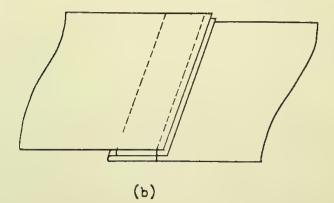


Seam type LSaj-1

This type of seam shall be formed by lapping the folded edge of one ply of material over a second ply, inserting a folded strip between the two plies, and seaming all plies with one or more rows of stitches.

Seam Type LSak August 14, 1959



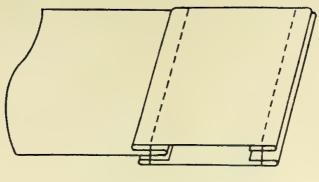


Seam type LSak-2

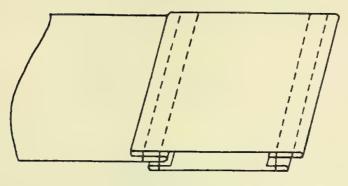
This type of seam shall be formed by:

- (a) superimposing two plies of material and seaming with one row of stitches, seam type SSa-1, and
- (b) turning the bottom ply over the first row of stitches and seaming with one or more rows of stitches.

FED. STD. NO. 751



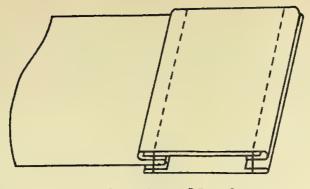
Seam type LSa1-2



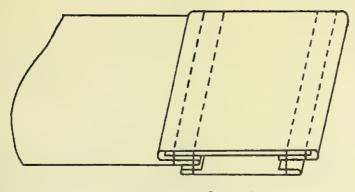
Seam type LSal-4

This type of seam shall be formed by folding one ply of material into an "S" fold at a specified distance from the edge, folding in the edge

and lapping it over a strip of material with the edges folded in and seaming with two or more rows of stitches.

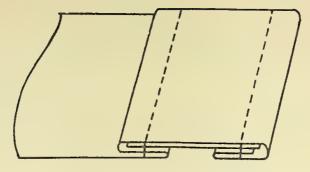


Seam type LSam-2

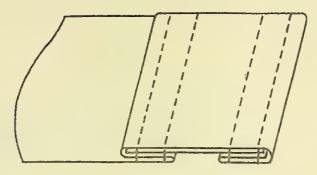


Seam type LSam-4

This type of seam shall be formed by folding one ply of material into an "S" fold, folding in the outer edge, inserting an interlining strip in the folds, and lapping these over another ply whose edges shall be folded in, and seaming with two or more rows of stitches.

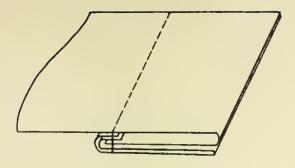


Seam type LSan-2



Seam type LSan-4

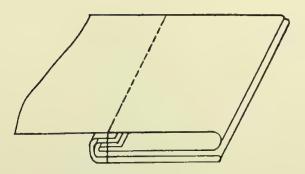
This type of seam shall be formed by folding one ply of material into an "S" fold, turning in and folding over the outer edge, inserting an interlining strip, and seaming with two or four rows of stitches.



Seam type LSap-1

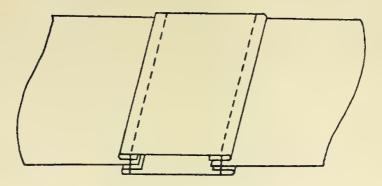
This type of seam shall be formed by folding one ply of material over on itself, lapping it on another folded ply, folding the edges of the bottom ply over the folded edge of the top ply and seaming with one or more rows of stitches through all plies of material at the folded in edges.

Seam Type LSaq August 14, 1959

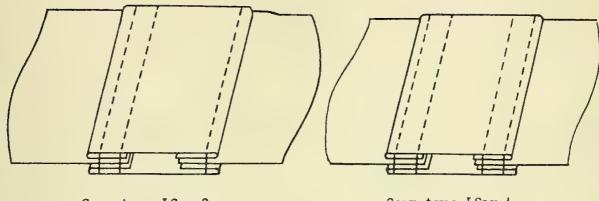


Seam type LSaq-1

This type of seam shall be formed by folding one ply of material over on itself, folding the edge in, lapping it on another folded ply whose edge shall be folded in between the body of the first ply and its folded edge, and seaming with one or more rows of stitches through all plies at the folded in edges.



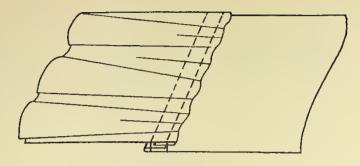
Seam type LSar-2



Seam type LSar-3

Seam type LSar-4

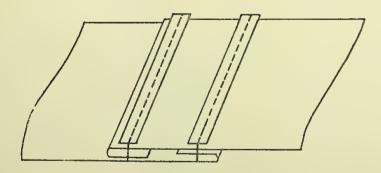
This type of seam shall be formed by folding the edges of two strips of material, lapping one on the other, inserting two or more pieces of material between them at the folded edges, and seaming with two or more rows of stitches through the folded edges and inserted material.



Seam type LSas-2

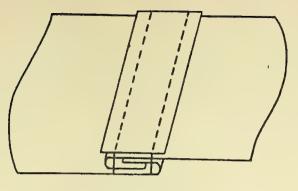
This type of seam shall be formed by folding the edges of two plies of material, lapping the folded edges over each other, and seaming with two or more rows of stitches.

> Seam Type LSat August 14, 1959

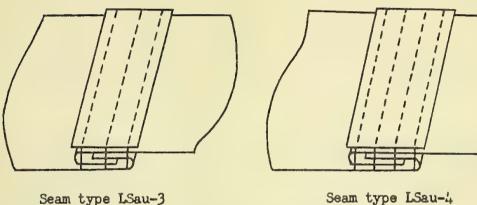


Seam type LSat-2

This type of seam shall be formed by lapping two plies of material with edges folded in, placing a strip of material on the top ply over each turned edge, and seaming with one row of stitches through each strip and all three plies of material.



Seam type LSau-2

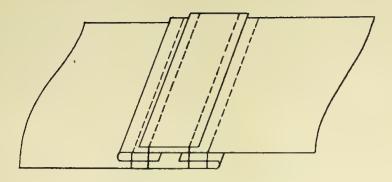


Seam type LSau-3

This type of seam shall be formed by folding and interlapping the edges of two plies of material so that their edges are concealed, placing

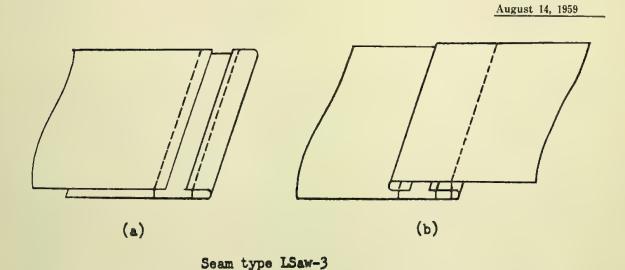
a strip of material on the top ply over the folded edges and seaming with two or more rows of stitches.

Seam Type LSaw



Seam type LSav-4

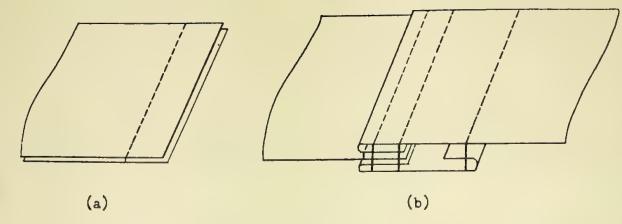
This type of seam shall be formed by lapping two plies of material, folding in the edges of both plies, placing a strip on the top ply, and stitching with four rows of stitches, two rows through the strip and the remaining two through the folded edges of the material.



This type of seam shall be formed by:

(a) lapping one ply of material over another a specified distance from the edge, folding the edge of the bottom ply and seaming with two rows of stitches, one through the edge of the top ply and body of the second ply and one through the folded edge of the bottom ply, and

(b) turning the top ply over at the row of stitches and seaming with one row of stitches through the body of the top ply and turned edge of the bottom ply.

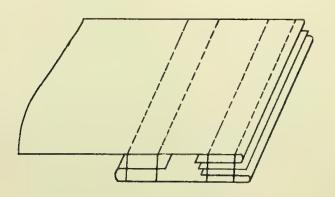


Seam type LSax-3

This type of seam shall be formed by:
(a) superimposing two plies of material and seaming with one row of stitches a specified distance from the edge in seam type SSa-1, and

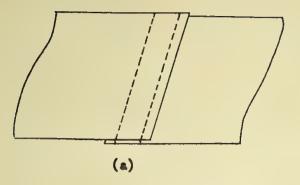
(b) turning the top ply at the first row of stitches, superimposing on a third ply with edges folded and seaming with three rows of stitches.

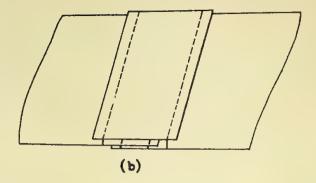
> Seam Type LSay August 14, 1959



Seam type LSay-4

This type of seam shall be formed by folding the edges of a strip of material and lapping it on the body material whose edge has been folded in, inserting a strip between the folded edges of the body material and the strip, and seaming with four rows of stitches.



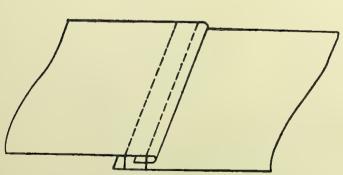


#### Seam type LSas-4

This type of seam shall be formed by:

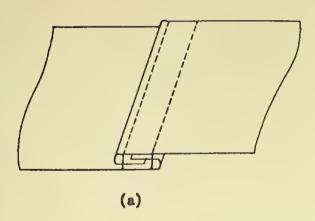
- (a) overlapping two plies of material and seaming with two rows of stitches in seam type LSa-2, and
- (b) placing a strip or tape over the first seam and seaming with two rows of stitches beyond each of the overlapped edges of the material.

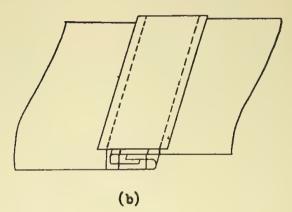
Seam Type LSba August 14, 1959



Seam type LSba-2

This type of seam shall be formed by folding the edge of a ply of material and lapping it on another ply, and seaming with two rows of stitches. Only one row of the stitches shall pass through the turned under edge.

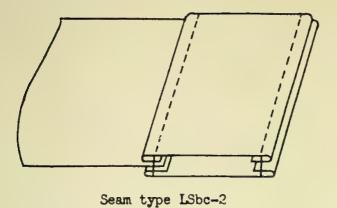


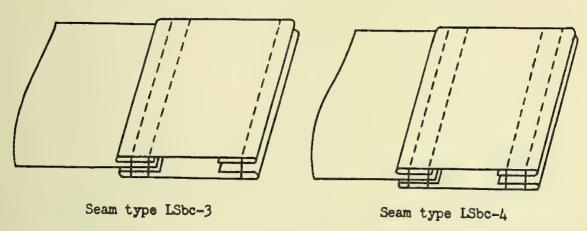


## Seam type LSbb-4

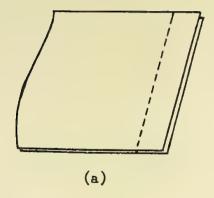
This type of seam shall be formed by:

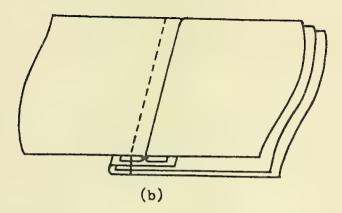
- (a) lapping two plies of material, folding both edges in and seaming with two rows of stitches as in seam type LSc-2, and
- (b) placing a strip or tape over the firs seam and seaming it to the body material with a row of stitches on each side of the seam.





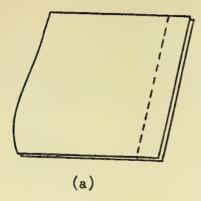
This type of seam shall be formed by folding in both edges of two plies of material, lapping one on the other, inserting a third ply of material between them and seaming with two or more rows of stitches.

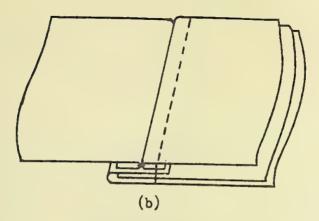




Seam type LSbd-2

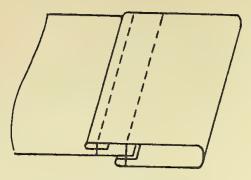
This type of seam shall be formed by superimposing two plies of material and seaming with one row of stitches in seam type SSa-1; opening the two plies and turning the edges of each ply back under the body of the ply; overlapping the seam onto two plies of material, the edge of one ply which has been turned up over the edge of the other ply, and seaming through all plies with one row of stitches on the side of the seam nearest the folded edge of the bottom ply.



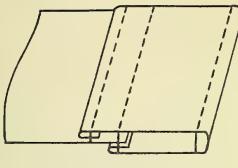


Seam type LSbe-2

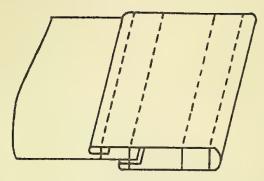
This type of seam shall be formed by superimposing two plies of material and seaming with one row of stitches in seam type SSa-1; opening the two plies and turning the edges of each ply back under the body of the ply; overlapping the seam onto two plies of material, the edge of one ply which has been turned up over the other ply, and seaming through all plies with one row of stitches on the side of the seam furthest from the folded edge of the bottom ply.



Seam type LSbf-2

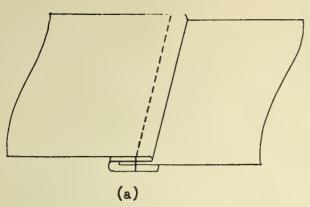


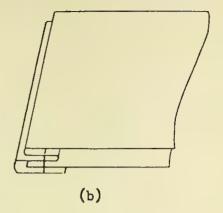
Seam type LSbf-3



Seam type LSbf-4

This type of seam shall be formed by turning both edges of a strip, folding it over the edge of a ply of material, the lower ply not extending as deep as the upper ply and seaming with two or more rows of stitches.

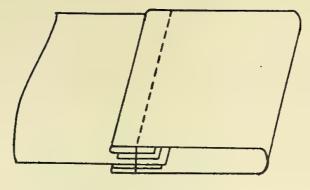




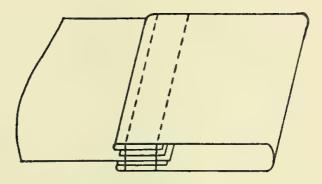
Seam type LSbg-1

This type of seam shall be formed by:

- (a) turning the edge of one ply of material in a reverse "S" fold, inserting a second ply in the fold nearer the edge, seaming with one row of stitches, and
- (b) turning the upper ply back to form the finished seam.

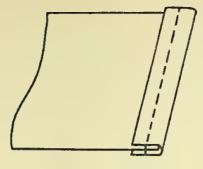


Seam type LSbh-1

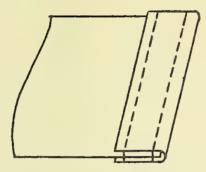


Seam type LSbh-2

This type of seam shall be formed by turning both edges of a strip and folding it over the ply or plies of body material. A tape shall be inserted between one folded edge of the binding strip and the body material and seamed with one or more rows of stitches.

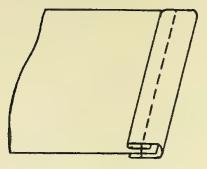


Seam type BSa-1

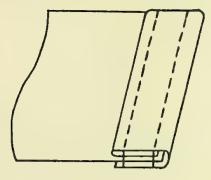


Seam type BSa-2

This type of seam shall be formed by folding a binding strip over the edge of the ply or plies of body material and seaming the binding strip and body material with one or more rows of stitches.

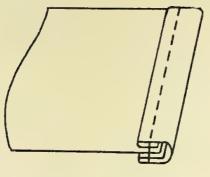


Seam type BSb-1

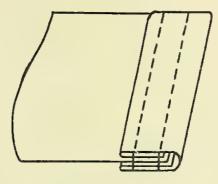


Seam type BSb-2

This type of seam shall be formed by turning one edge of a binding strip, folding it over the edge of the ply or plies of body material, and seaming the binding strip and body material with one or more rows of stitches.

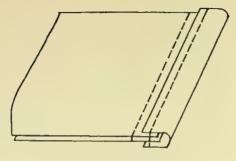


Seam type BSc-1



Seam type BSc-2

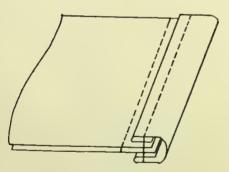
This type of seam shall be formed by turning both edges of a binding strip, folding it over the edge of the ply or plies of body material, and seaming the binding strip and body material with one or more rows of stitches.



Seam type BSd-2

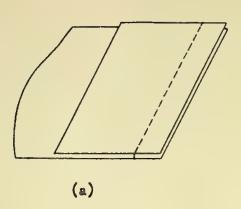
This type of seam shall be formed by folding a binding strip over the edges of the plies of body material, seaming the binding strip and body material with one row of stitches, and the plies of body material with a second row of stitches a substantial distance from the edge.

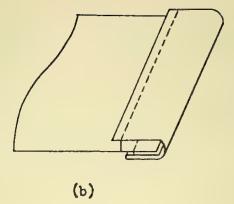
Seam Type BSe August 14, 1959



Seam type BSe-2

This type of seam shall be formed by turning both edges of a binding strip and folding it over the edge of the plies of body material, seaming the binding strip and body material with one row of stitches and the two plies of body material with another row of stitches a substantial distance from the edge.



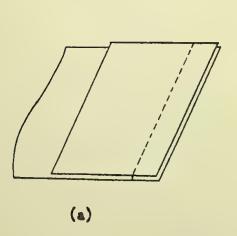


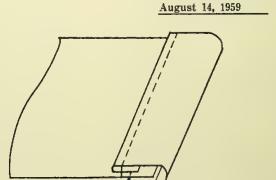
### Seam type BSf-2

This type of seam shall be formed by:

(a) superimposing a strip on a ply of body material and seaming with one row of stitches in seam type SSa-1, and

(b) turning the strip over the row of stitches around the edge of the body material and seaming with a second row of stitches.





Seam Type BSg

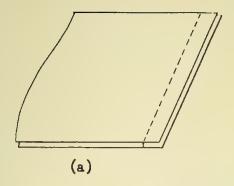
Seam type BSg-2

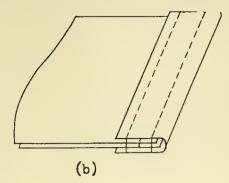
This type of seam shall be formed by:

(a) superimposing a strip on a ply of body material and seaming with one row of stitches in seam type SSa-1, and

(b) turning the strip over the row of stitches around the edge of the body material, folding the edge of the strip, and seaming with a second row of stitches.

(b)

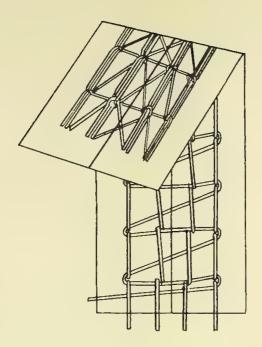




Seam type BSh-3

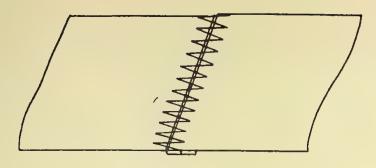
This type of seam shall be formed by:
(a) superimposing two plies of material and seaming as in seam type SSa-1, and

(b) folding a binding strip over the edges of the plies of the body material and seaming with two rows of stitches.



Seam type FSa-1

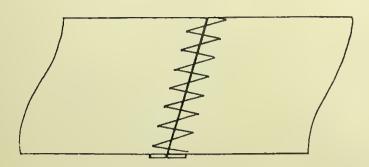
This type of seam shall be formed by seaming the edges of two or more plies of material with a row of stitches extending across and covering the edges of the material.



Seam type FSb-1

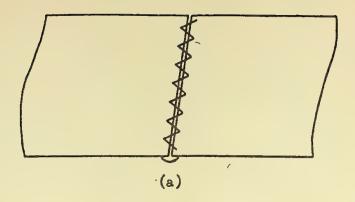
This type of seam shall be formed by turning the edge of one ply of material, abutting it against the raw edge of a second ply of material and seaming with a row of stitches extending across and covering the turned edge of the first ply and the raw edge of the second ply.

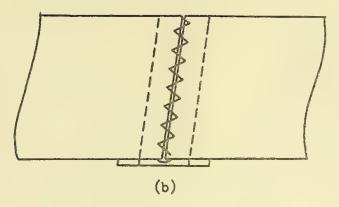
Seam Type FSc August 14, 1959



Seam type FSc-1

This type of seam shall be formed by turning and abutting the turned edges of two plies of material and seaming with a row of stitches extending across and covering the turned edges of the material.



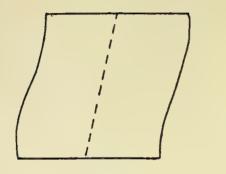


Seam type FSd-3

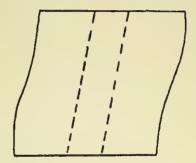
This type of seam shall be formed by:

(a) seaming the edges of two plies of material in seam type FSa-1; and

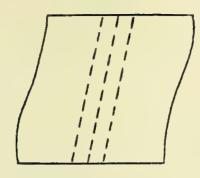
(b) seaming a reinforcing tape over or under the seam with two rows of stitches a specified distance apart.



Stitching type OSa-1

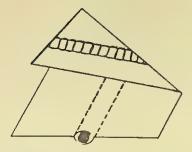


Stitching type OSa-2



Stitching type OSa-3

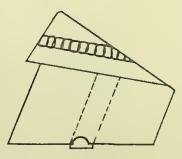
This type of stitching shall be produced with one or more straight rows of stitches.



Stitching type OSb-1

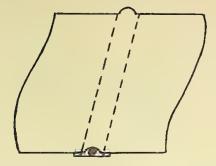
This type of stitching shall be produced by inserting a cord between the material and the locking thread of the stitch, thus forming a ridge or corded effect.

Stitching Type OSc August 14, 1959

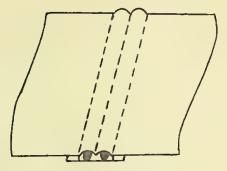


Stitching type OSc-1

This type of stitching shall be produced by forming the material in a ridge to give a corded effect without inserting a cord.

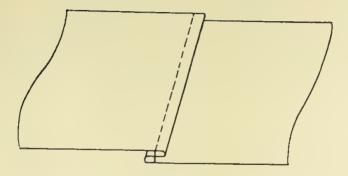


Stitching type OSd-2



Stitching type OSd-3

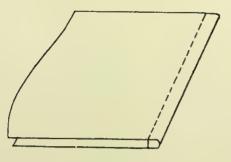
This type of stitching shall be produced by inserting a cord or cords between two plies of material and stitching with a row of stitches on each side of the cord or cords.



## Stitching type OSe-1

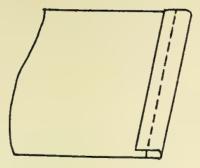
This type of stitching shall be produced by folding the material in an "S" or reverse "S" fold as specified, and stitching the fold to the body material with one or more rows of

Stitching Type OSf August 14, 1959

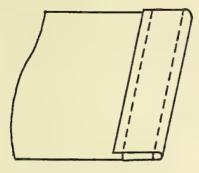


Stitching type OSf-1

This type of stitching shall be produced by folding and stitching plies of the material near the fold with one or more rows of stitches.

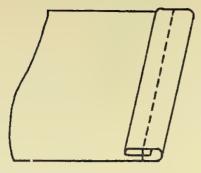


Stitching type EFa-1

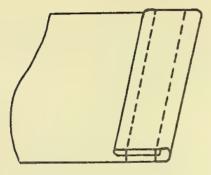


Stitching type EFa-2

This type of stitching shall be produced by turning the edge of the material and stitching the turned portion to the body of the material with one or more rows of stitches.

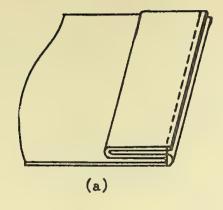


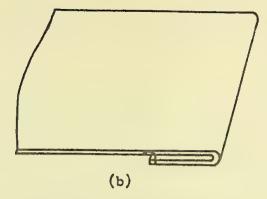
Stitching type EFb-1



Stitching type EFb-2

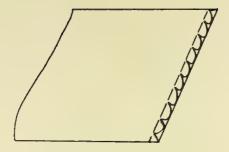
This type of stitching shall be produced by turning the edge of the material, folding it back over the body of the material, and stitching the turned and folded portion to the body of the material with one or more rows of stitches.





## Stitching type EFc-1

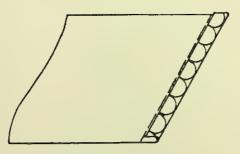
This type of stitching shall be produced by folding the edge of the material in an "S" fold and stitching the turned portion to the body with one row of stitches. In sewing, the material shall be so guided that the needle only partially penetrates the folded edge. When the material is laid flat, the stitches shall not show on the outer face of the material.



Stitching type EFd-1

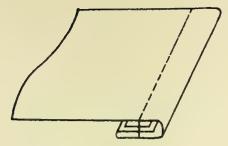
This type of stitching shall be produced by placing a row of stitches over the edge of the material.

Stitching Type EFe August 14, 1959



Stitching type EFe-1

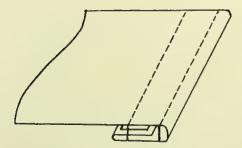
This type of stitching shall be produced by turning the edge of the material and placing a row of stitches over the edge of the material.



#### Stitching type EFf-1

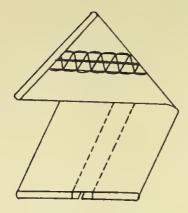
This type of stitching shall be produced by turning and folding the edge of the material, inserting a strip between the fold and the body of the material and stitching with one or more rows of stitches.

> Stitching Type EFg August 14, 1959



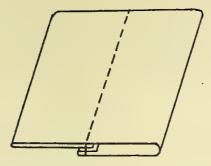
Stitching type EFg-2

This type of stitching shall be produced by turning and folding the edge of the material, inserting a strip between the fold and the body of the material, and stitching with two rows of stitches. The strip shall be secured by one or more rows of stitches as specified.

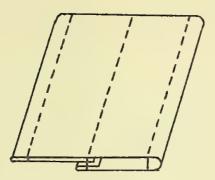


Stitching type EFh-1

This type of stitching shall be produced by turning the edges of a strip of material, bringing the edges together, and stitching the butted edges with a row of stitches extending across and covering the edges of the material.

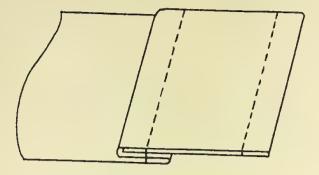


Stitching type EFj-1

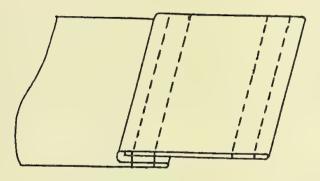


Stitching type EFj-3

This type of stitching shall be produced by folding a strip of material, overlapping the edges, turning the edge of the under ply, and stitching through all the plies with one row of stitches (Stitching type EFj-1). One row of stitches shall be placed at each folded edge to form stitching type EFj-3.

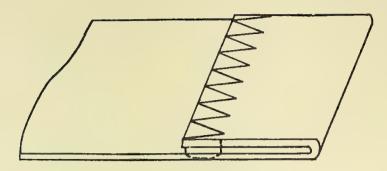


Stitching type EFk-2



Stitching type EFk-4

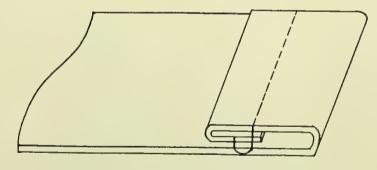
This type of stitching shall be formed by folding the material in an "S" fold, turning the free edge back into the top of the "S" and stitching with one or more rows of stitches through each side of the fold.



## Stitching type EF1-1

This type of stitching shall be produced by turning the edge of the material and stitching it to the body material with one row of stitches. The stitches shall overedge the turned edge and the needle shall only partially penetrate the body material so that the stitches do not show on the outer face of the material.

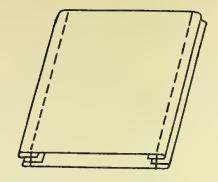
> Stitching Type EFm August 14, 1959



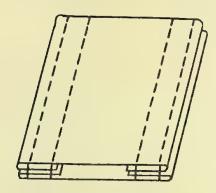
#### Stitching type EFm-1

This type of stitching shall be produced by turning the edge of the material, folding it back over the body material, and joining the turned and folded portion to the body ma-

terial with one row of stitches. The needle shall only partially penetrate the body material so that the stitches do not show on the outer face of the material.

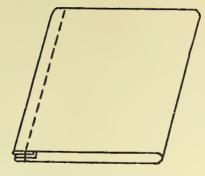


Stitching type EFn-2

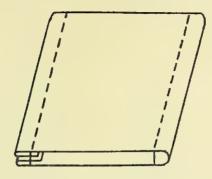


Stitching type EFn-4

This type of stitching shall be produced by turning the edges of two strips of material and joining the edges so turned by two or four rows of stitches.

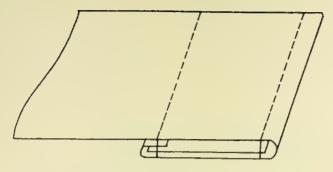


Stitching type EFp-1



Stitching type EFp-2

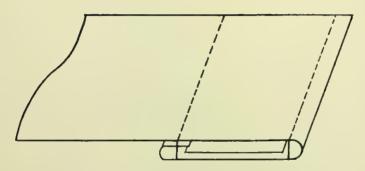
This type of stitching shall be produced by turning a strip of material, folding the edges inwardly and joining with one or two rows of stitches.



Stitching type EFq-2

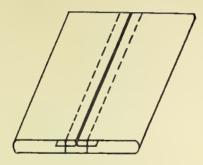
This type of stitching shall be produced by turning and folding the edge of the material around a strip and stitching with two or four rows of stitches. The strip shall be secured by all the rows of stitches.

Stitching Type EFr August 14, 1959



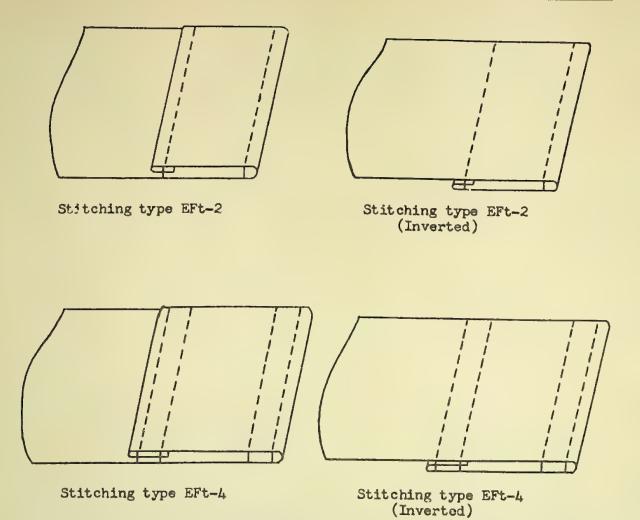
Stitching type EFr-2

This type of stitching shall be produced by turning and folding the edge of the material around a strip and stitching the material with two rows of stitches. The strip shall not be caught in either of the rows of stitches.



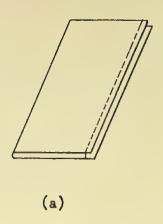
Stitching type EFs-2

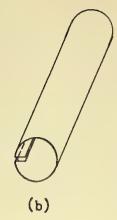
This type of stitching shall be produced by turning both edges of a strip of material upward and then downward, abutting the folded edges, and stitching with two rows of stitches.



This type of stitching shall be produced by turning the edge of the material, folding it back

over the body material and stitching with two or more rows of stitches.

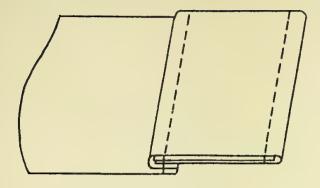




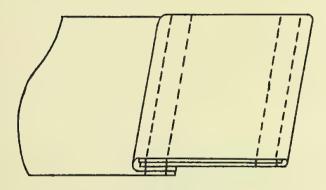
# Stitching type EFu-1

This type of stitching shall be formed by folding a piece of material with the face inside and stitching along the edge with one row of

stitches. After stitching, the cylinder thus made is turned inside out to place the face of the material on the outside.



Stitching type EFv-2



Stitching type EFv-4

This type of stitching shall be formed by folding the material, inserting an interlining

strip, and stitching with two or four rows of stitches.

